



Connecticut
INDUSTRY

AUGUST
SEPTEMBER
1944

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Connecticut INDUSTRY

MANUFACTURERS' ASSOCIATION OF CONNECTICUT, INC.

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L. M. BINGHAM, Editor

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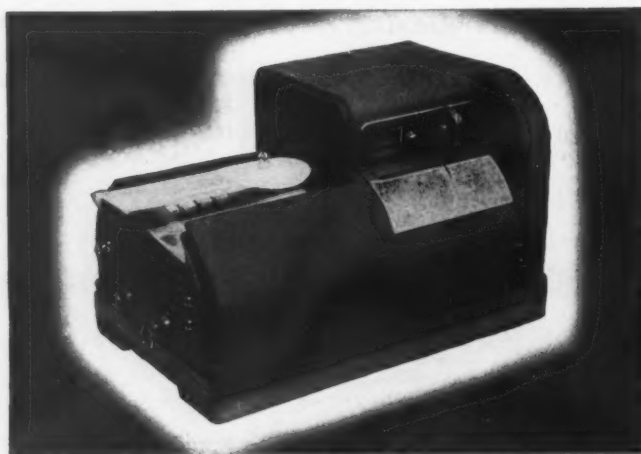
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PATTERN FOR PEACE

By ALFRED C. FULLER, *President*



ADMITTEDLY, there are many difficult hurdles yet before the Allied noose chokes all the fight out of Nazi Germany and makes the Japanese war lords sue for peace at any price. It may take four to six months or longer to bring Germany to her knees, and possibly up to two years to force Japan to accept Allied peace terms. Although it is highly important to cut the time table of both wars to the minimum to save as many lives of our fighting men as possible, it is equally urgent for American business to crystallize a plan of action that will make the peace worth the awful price that will have been paid for it.

While there have been thousands of groups at work planning for peace on an international, national, state, local and individual business basis, I am constantly reminded that the basically simple pattern for peace is being overshadowed by the complexity of planning statistics and the emphasis placed upon finding jobs for the returning veterans and displaced war workers. Even though it may be good politics to talk about the necessity for having jobs for veterans, it is far more important, although less dramatic at this climactic stage of the war, to discover a sound American method for creating those jobs which will be self-perpetuating.

The method is simple even though the problems involved in attaining the results are frequently complex. It is as American as baked beans in New England, chicken and biscuits in the South, corn mush in the Middle West, and flapjacks in the lumber camps of the West. It merely produces more goods for more people at lower costs while constantly increasing payrolls and purchasing power. James Y. Scott, President of the Machine Tool Builders Association and President of the Van Norman Tool Company of Springfield, Mass., hit the nail on the head when he told members of his Association at their annual meeting last Spring, "After this war, cost-cutting is going to be just about the biggest problem in the entire industrial field. You know that wages aren't going down, and you know, too, that

if prices keep going up American industry won't be able to get the mass markets needed to sustain high level postwar employment.

"It is up to us right now to do so good a job of re-engineering and re-designing that when the war is over, American manufacturers can continue to pay high wages and at the same time put their products on the market at prices that the masses of people in this country and in other countries can afford to pay."

There is nothing complicated about Mr. Scott's economic pattern for a sound peace. And there is nothing quite so important on the docket of American industrial management as to star it for immediate action. To follow the line of least resistance by increasing prices because of higher labor or material costs, or both, is to court disaster for the nation and certainly for any semblance of freedom of action for business. It is nothing but simple arithmetic or chaos. Increase prices ten or twenty per cent while lowering the take-home pay and reducing the number of workers, and you have neither the property or incomes to tax for the servicing or slow liquidation of the national debt, nor the purchasing powers to buy the products of industry. Unemployment Insurance I.O.U.'s will be called into play by the billions which must again be paid by taxpayers less and less able to pay. Such a descending spiral can only end in economic bankruptcy.

The American method of finding short-cuts to speed production of more goods for more people at high wages and lower costs is the only sane pattern for peace. These scientific short-cuts are winning the war of production against the Axis. They can and must win peace for the world against laissez faire after "V" Day.

INDUSTRIAL PATTERN FOR THE FUTURE

By GEORGE C. WALDO, *Editor-in-Chief*, Post Publishing Co., Bridgeport and *Chairman*, Connecticut Park and Forest Commission

A LONG-TIME STUDENT of the factors that make for success in industry and business, Mr. Waldo for 25 years editor-in-chief of the Bridgeport Post, Telegram and Sunday Post, president of the Post Publishing Company, and for five years a member of the Connecticut Park and Forest Commission, believes that successful business and industry is more than wages, salaries and protective laws. In this article he clearly projects how Connecticut's natural beauty and opportunities for outdoor satisfactions can be the "ace in the hole" bid of the state to uphold its industrial future. It is "must" reading for the management who would overlook no bets for success in the future.

FOR generations the state of Connecticut has maintained an industrial leadership out of all proportion to its size. In the present war effort Connecticut's per capita output in terms of dollar value is the highest in the Union.

From one viewpoint this record presents an amazing paradox, for our state has few natural advantages. Connecticut has no coal or iron mines. It has no oil wells and only a limited amount of water power. It is remote from the great centers of steel production and heavy industry and is likewise far-removed from the agricultural regions where our basic farm commodities of cotton, wheat and corn are produced.

In the face of such apparent disadvantages a prospective manufac-

turer might well ask why he should locate his industry in Connecticut. Yet old industries thrive here and new ones arrive and the state has thus far maintained its industrial position.

The explanation of this paradox lies in the fact that Connecticut is blessed with an unusually large proportion of men who "know how." Men who know how to manage industry, men who know how to design and make the tools, men and women who know how to make the products.

These skills and the traditions underlying them have been handed down from generation to generation. Our state's success in the future as in the past must be predicated on retaining within our own borders the skilled workers who alone make our industries possible.

It hardly seems necessary to point out that we must take thought for the future. At the end of the present war there will be a struggle for industry, such as this nation has never before known. From one end of the land to the other, new factories have been erected with government loans and lavishly equipped with the best of modern machinery. Communities which never had local industries are now benefitting by war work and

planning to retain these industries in some form after the war is over.

Skilled Workers—A Natural Resource

Every inducement will be offered by such communities to entice Connecticut's industries away and every legitimate effort (and some perhaps not so legitimate) will be made to lure from this state the skilled workers who have been trained in Connecticut production methods.

In brief the problem is this: If we can retain our skilled manpower we can maintain our industrial leadership. If we cannot maintain our skilled manpower we shall lose our leadership.

Bricks, mortar and machinery do not make an industry. Bricks, mortar and machinery have been scattered in great profusion all over this nation, in places that never saw the like before and the struggle for industrial leadership in the future devolves itself into a struggle for trained manpower.

It behooves us then, as those who love our state, to take stock of ourselves and see what we are going to do to keep the native skills we possess and to add to them as time goes on.

Connecticut's Treasure

It is well for us therefore to consider the reasons why people live in Connecticut. We have mentioned some of the disadvantages under which we struggle as an industrial state. We may take a moment to count our blessings. Foremost of these is the state itself.

For Connecticut, though small, is the most beautiful state in the Union. It enjoys in great profusion the riches of nature which make it an ideal place in which to live.

Most of us who live here today have chosen Connecticut because we would rather be here than anywhere else in the United States, if not in the world. If we think of Connecticut not as a political commonwealth nor yet as an industrial mechanism but as a place for living, we shall get the clue.

400,000 ACRES OF FOREST like this should be the ultimate objective in Connecticut's reforestation program according to Park and Forest Commissioner Waldo. When this goal is reached, the forests, through selective cutting, will be self-supporting and returning a net revenue to the state. In addition they enrich the soil, prevent floods and erosion, and provide recreation grounds unsurpassed for natural beauty.





A BUSY DAY at Rocky Neck State Park, Lyme, one of three shorefront state parks. Hammonasset in Madison and Sherwood Island in Westport complete the trio of state owned seaside parks

which in the postwar years will again provide healthful recreation for thousands who wish to take advantage of Connecticut's unsurpassed natural beauty spots.

The writer has talked with scores of newcomers to our state who represent most of the other states in the Union in point of origin and who would much rather stay here than go back home after the war. They have found in Connecticut, with its varied topography, its beautiful shorefront, its rich and picturesque river valleys, its commanding hills, its wooded slopes, its peaceful farms and its interesting diversity of cities and small towns, a well-organized design for living. It suits them.

In our planning we have never given the natural attractions of our state the attention they deserve, nor weighted them properly in their asset value as contributing to Connecticut's welfare. Yet we do not live to work. We work to live, and living itself is the greater design which is sometimes overlooked in the lesser one.

Blueprint for Beauty

That is why the program of the Park and Forest Commission is destined to play an important part in the future welfare of the state, a part which should be understood and supported by every industrialist if only as a matter of intelligent self-interest.

If the plans of the Commission are carried to fulfillment we shall not only enhance the present beauties of the state by a restoration of those woodlands which were destroyed by careless practices in the past, but we shall make available to all of the people of the state those facilities for healthful recreation which will add immeasurably to the value of Connecticut as a living institution, to the

enjoyment and benefit of all of our people.

Under the management of the Park and Forest Commission we now have 51 state parks covering 14,000 acres of ground, and 101,000 acres of forests. We are adding to the forests and will add (by gift) at least two more parks in a matter of a few months.

Many of our parks are now in an undeveloped state. The Commission during its 30 years of existence has wisely made acquisition of desirable park sites, while still available, its first objective. It has now reached the point where full development and use should be the immediate goal.

Three fine shorefront park sites at Sherwood Island in Westport, Hammonasset in the town of Madison, and Rocky Neck in Lyme, assure to all the inhabitants of Connecticut free access to the shorefront at all times.

Numerous upland parks including every variety of Connecticut scenery, centering about mountains, rivers, brooks or lakes as their natural features, supplement the shorefront parks and add to the diversity of recreation possible.

With the development of these parks for full use, any Connecticut workman may pack his family into the jalopy on Sunday and be sure of a perfect day's outing at minimum expense and with the greatest possible enjoyment of Connecticut's beautiful resources. The development of our state parks to their fullest potentialities is thus an important part of the program of making Connecticut the ideal state in which to live.

Incidentally I might add, that owner, manager or factory worker will find no class distinction in this enjoyment. To all red-blooded Americans, this heritage of woods and streams and fields and shorefront, brings back memories of boyhood and renews youth and vigor in nature's own laboratory.

In this program of recreation the forests are now beginning to play an important part. We have, as stated,

GILLETTE CASTLE, East Haddam, is one of the more recently acquired state properties and likewise one of the more interesting. This former home of stage star William Gillette, patterned and furnished in the manner of a medieval castle, is situated on a high bluff commanding a breathtaking view of the Connecticut River.



101,000 acres of land classified as forests. Some of this is burnt-over or cut-over land, acquired by the state at a very low price,—as low as \$4.00 an acre in some instances. It will be fully forested 100 years hence. In the meantime it includes many picnic and recreation areas as well as some of the best shooting cover of the state, open to all hikers and hunters alike.

The Commission in its acquisition program has been getting an entry into the kind of country that is a delight to the sportsman and lover of the out-of-doors. The CCC camps, recently closed, finished 250 miles of forest roads before the war put a stop to their activities. Trained rangers and fire warden crews guard these forests against damage to the trees by fire, disease or insect pests and lay out plans for planting and development. The cutting of wood is controlled on scientific principles so that each year the forest grows greater while it yields up its annual toll of wood for practical uses.

At present Connecticut's state-owned woodlands can produce 30,000 cords a year, not only without depleting the forests but adding to their actual improvement. Modern forestry no longer approves of destructive cutting. The forest itself is treated as a living organism while it produces its annual crop of wood for utilitarian purposes.

As burnt-over or second-growth land comes into full yield under forestry principles, Connecticut's woodlands, both state-owned and private, will

produce more and more of the lumber needed for all purposes. Eventually our state can become completely self-supporting in this respect, furnishing all the wood needed by industry, for home building and for all the manifold purposes for which lumber is used in this age of chemical miracles when cellulose (the basic material) is the foundation for a myriad of products from nylon hose to airplane wings.

Here is the one inexhaustible raw material with which our state is blessed. This reforestation program lets us eat our cake and have it, too.

Subtract from Connecticut's area all of the land occupied by the cities, by homes, by industries, all land necessary for roads and utilities, all arable land suitable for farming, and we have covered only about one-third of the land area of the state.

The other two-thirds can best serve our purposes by reforestation and in carrying out this program the state itself must take the leadership, set the good example, teach the proper practices and maintain within its own control enough forest area to make good forestry practices paramount.

Forest Farming Pays

All of us cannot expect to live to see this program fulfilled. If left to nature alone it takes about 400 years to produce a real forest from a cut-over or burnt-over patch of land. By good forestry practices we can do the same thing in less than a century and we can be producing timber for commercial purposes in 25 to 30 years.

While we are taking this increment by selective cutting, the forest itself grows steadily. Forest-farming of this type, unlike ordinary farming, enriches the soil instead of depleting it. The fertile soil which our forefathers found was created by the forests in the first place and when we restore the forests, we restore the soil again. We guard the state against floods and droughts. We prevent erosion. And above all, we give to Connecticut the beauty of trees for which there is no substitute.

I believe we should eventually have at least 400,000 acres of state-owned forests and when we have reached that goal the cost of the forestry program will have been reduced to zero, for the forests will be self supporting and returning a net revenue to the state.

More than that, they will be adding immeasurably to the health, welfare and pleasure of Connecticut's people. We shall then be taking full advantage of the natural blessings which Providence has bestowed on Connecticut: its fortunate location in the temperate zone, its changing and healthful climatic seasons, its beautiful and interesting topography, and its infinite diversity which make those who live here love their state above all others and say stoutly to all offers from outside, "I don't want to live anywhere else."

Money appropriated for carrying-out the Park and Forest program should not be looked upon as an annual expense, but as a capital investment. Those Connecticut Yankees who, from ingrained habit, like to see a dollar coming back for every dollar invested, (with a little added for interest) may be assured that no other investment by the state will pay such direct returns in dollars and cents.

But I have avoided going into statistics on this subject. This is not a statistical article, but an attempt to present the case for the fullest development of Connecticut's parks and forests, as an indispensable adjunct to the welfare and happiness of the people of this state.

We all know the tragic history of those blighted areas where natural resources have been ruthlessly exploited and only deserts and wastelands left for subsequent generations.

In our own state we are reversing this process in such a way that each future generation may find a better state than the one enjoyed by its predecessor. Who isn't glad to have a hand in making this possible?



GREAT FALLS, Wadsworth Falls State Park. "To all red-blooded Americans, our heritage of woods and streams and fields and shore brings back memories of boyhood and renews youth and vigor in nature's own laboratory." A view of Kent Falls appears on this issue's cover.

DESTINATION: HARMONY

By MERRICK JACKSON, N. W. Ayer and Son, and former president of National Council of Industrial Editors Association

IN THIS APPRAISAL of the present-day employee publication, the author outlines a formula for achieving harmony in the industrial ranks through proper selection and presentation of material which most interests the industrial worker. The content of this article was recently delivered in the form of an address by Mr. Jackson to the Business Editors' Club of Southern New England.

THE employee publication has an important destination: the cultivation and consummation of harmony in the industrial ranks. In our prosecution of this war we have learned something about harmony.

All over the world men and women are fighting for the right to maintain and improve their free institutions. Whether on the battlefield or in war production they are hammering down a foe that would destroy the way of life for democratic peoples. It has been a rude shock to those supermen who called us decadent.

Although physically and temperamentally unprepared for global strife, this nation mobilized at a speed thought impossible of 135,000,000 unregimented persons. Our young men donned uniforms and learned to fight. Our production workers retooled machines and began turning out breathless amounts of war materials. All of us are buying bonds and accustoming ourselves to rationing. We are learning to make sacrifices.

The secret of this overnight conversion was willing co-operation, based on a mutual understanding of common danger. The Chinese have a word for it—Gung Ho.

Because this was mechanized warfare at its worst, the question of whether we could deliver weapons, ammunition, men and food in the right amount in the right places at the right time rested with industry. It was in our industrial plants that Gung Ho was either to be an empty phrase or a state of mind.

The managers and men of industry have provided the answer. Together they have enabled the forces of the United Nations to drive more deeply into enemy-held territory. Together they have equipped and armed a mighty army across the Atlantic now poised for the greatest mass assault in history.

In this crisis the industrial forces of



MERRICK JACKSON

the nation by and large have set aside their differences of opinion, internal dissensions, and clashing issues. If we are going to be realistic, however, we must recognize that even a family hitherto split by discord and bitterness will present a solid front when one of its number is attacked. Likewise, the elements of strife within our industrial house have been laid on the shelf while the whole family is beating up a maniac.

In effect, we have an industrial truce, an unwritten pact on the part of management and labor to stand side by side until we have helped win the war. Then what?

Will our plants turn into a battleground for labor disputes? Will buildings be picketed and sitdown strikes sponsored? Will our return to civilian activity thus become a slow, uncertain and unprofitable process?

Or will we recognize that we have important duties and responsibilities toward one another? Will we realize that agreement among ourselves will provide a prosperous role in reconstruction? Will we appreciate the fact that industrial solidarity will lead to economic and ethical heights which more than anything else can safeguard peace?

We cannot have international peace unless we have national harmony. We cannot have national harmony without industrial peace.

It is in the hands of thousands of industrial relations men and women to create an atmosphere of mutual confidence, self-respect and fair dealing. Much can be done between now and the end of the war to lay the groundwork for a lasting understanding, a spirit of good will born of expediency but nurtured by wise experience.

In editing an industrial magazine or newspaper for employees, the editor has the makings of a journalistic engineer. The publication can become a bridge linking management and labor, a bridge spanning the waters of misunderstanding and distrust, a bridge that provides both groups with prompt and open contact.

If you live on one shore of an uncharted river and you have not discovered a trustworthy means of transportation to the other side, you cannot know how the people over there are living. You cannot appreciate their desires. You cannot understand their point of view. Until you do, and they in turn become acquainted with you, each follows an independent life and thought.

But get together in an atmosphere of dependence and faith, and a new strength is achieved.

Today there are thousands of employee publications throughout the country. A large number have been established since the war for the very purpose of bringing together the divergent interests of management and men. It seems to me unfortunate that so many are falling short of achievement.

This failure—and perhaps failure is too strong a word—is not necessarily a reflection upon the talent or energy of the editor. Some of the more common causes are to be found in management's passive attitude toward them and labor's active skepticism of them. A great many industrial periodicals, although expensively reared and handsomely dressed, have not the genuine regard of either group. Their potentialities are still unrealized.

Employee publications—and I speak more particularly of those with longer service—were too often conceived in

(Continued on page 37)



COLONEL THEODORE ROOSEVELT accompanied by Colonel J. L. Greene riding in a Columbia Electric Victoria on his visit

to Hartford, Connecticut, in 1902. This is possibly the first presidential use of an automobile, according to authorities.

Photo courtesy of Honiss Collection

HARTFORD — INCUBATOR OF THE AUTOMOBILE INDUSTRY*

By HENRY CAVE, *Consulting Engineer, The Fuller Brush Co., Hartford*

THE City of Hartford occupied a unique position at the inception of the self-propelled vehicle era—a position which has been almost forgotten over the years, because a locality can only claim its place in the sun on account of the activities of its sons.

It is a privilege accorded me to properly and accurately record the prominence of Connecticut's capital in connection with the great development of the modern automobile in this article.

George H. Day, whose direct descendants are active in Hartford, was with the Weed Sewing Machine Company in the '80's, and when Colonel Albert A. Pope took over the plant to make Columbia and Hartford bicy-

cles, Day became general manager and the active head of the Pope interests in Hartford.*

It was only a step from bicycles as a means of locomotion to motor cars, and he became interested in some experiments Hiram Percy Maxim had conducted in Lynn, Massachusetts, applying a gasoline motor to a tricycle.

Day sent a prominent Hartford engineer, Henry Souther (who later established our well-known concern, the Henry Souther Engineering Corp.) to negotiate, with the result that the motor-carriage department of the Pope Manufacturing Company was established in 1895.

Although the original incentive was gasoline vehicles, they shortly concentrated largely on electric storage battery vehicles, making their first public announcement May 14, 1897, in the *Hartford Daily Courant* of that day, a photostat copy of which I have.

This announcement is as follows:

"HORSELESS ERA COMES"

"Columbia Motor Carriages Shown to the Public

"Run by Electricity Through Mud and Up Grades

"Pope Manufacturing Co.'s Red Letter Day in a New Development

"Specialists and Newspaper Men from Out of Town Witness the Exhibition. Ride in and Manage the Wonderful New Vehicle."

In the meantime, they continued work on several gasoline vehicle models.

I will now tell you something that will probably amuse and surprise you. In my extensive file of automobile bibliography, I came across a statement by a prominent English technical paper editor, who in 1899 had made a trip to all the centers of motor car production in the world,

* Reprinted from the April, 1944 edition of "Old Timers News", official publication of the Automobile Old Timers, Inc.

including France, Germany, England and the United States. This statement was that:

"The town of Hartford, Connecticut, is the greatest center of activity in the automobile industry today."

About this time, negotiations were consummated by the Pope Manufacturing Company for the control of the Selden Patent. This resulted in another deal whereby financial interests put \$1,000,000 cold cash into the development of the automobile industry in Hartford.

The Selden Patent was applied for in 1879 but not issued until 1895, at which time the then Commissioner of Patents stated in his annual report that this "may be considered the pioneer invention in the application of the compression gas engine to road or horseless carriage use."

Litigation that this started resulted in the challenge that the Selden Patent was invalid, as it was claimed it did not show an operative device.

I want to say that I speak of these matters from a personal knowledge of them and this was where I came into the picture.

After taking a part, though a negligible one, in a petition to the English Parliament that led to the repeal in 1896 of the so-called "Red Flag Law," which required a man with a red flag to walk ahead of any self-propelled vehicle on the roads of England, I then joined the forces of the English Daimler Company of Coventry (this was afterwards managed for many years by Percy Martin, an American, who married Miss Heublein of Hartford), and I then worked with several other automobile concerns, thus having considerable automotive engineering experience when I came to America and became experimental assistant to Andrew L. Riker, who afterwards headed the Locomobile Company of America at Bridgeport, Conn.

Mr. Day then offered me the job of developing a working vehicle to prove that the Selden Patent was valid.

This I accomplished as attested to by Hiram Percy Maxim in his book "Horseless-Carriage Days," in which he states that Henry Cave got "it to run" and "the suit for infringement was won by our company."

The company referred to was the Electric Vehicle Company of Hartford, which was the name under which the expanded motor-carriage department of the Pope company operated with George H. Day as President. An announcement appeared in the March



HENRY CAVE is a native of Nottingham, England, where he was born in 1874. After attending the local high school and Nottingham University College, one of his first jobs was testing automobile engines for the Daimler Company of Coventry. Coming to the United States in 1900, Mr. Cave grew up with the horseless carriage industry in Connecticut. His development work in connection with the Selden Patent while with the Electric Vehicle Co. of Hartford, contributed greatly to the early success of the automobile industry in the state.

In 1908, Mr. Cave established the Cave Welding Co. to pioneer and develop oxy-acetylene welding. While with the Davis-Bournonville Co., as director of research, he was drafted by the Chemical Warfare Service during World War I and developed this country's first successful flame thrower and other implements of war.

After serving as factory manager for SKF Industries' Hartford plant, Mr. Cave devoted considerable time to the development of a household electric dish washer which was successfully manufactured in Springfield, Mass.

Coming to Fuller Brush in 1923, Henry Cave was instrumental in creating and perfecting many brush making machines of which the wet mop machine and the "Fullergrip" system of brush construction are perhaps the outstanding.

20, 1903, issue of the Hartford Daily Courant as follows:

"Selden Patent Valid

"Decision of Importance to Makers of Automobiles

"Decision in Favor of Electric Vehicle Company

"Nearly All Responsible Manufacturers of Gasoline Automobiles Now Licensees of Local Company."

After thus proving the Selden Patent valid, George H. Day and his associates took a broad gauge action, which, in my opinion, was a big factor in the development of the automotive industry to its colossal proportions and to what should be to the renown of Hartford and the State of Connecticut.

Instead of trying to control the automotive industry from Hartford, they invited all the prominent substantial builders of motor cars into an association to have equal rights under the patent. Most of the members of this association afterwards attained prominence in the industry and are well-known throughout the automobile world.

This was called the Association of Licensed Automobile Manufacturers or the A. L. A. M., as it was known in the industry.

As a result of this action, the Hartford Daily Courant of April 17, 1903, announced:

"Mr. Day's New Position

"Has Resigned Presidency of Electric Vehicle Company

"Head of Association of Licensed Automobile Manufacturers."

I feel that what the association accomplished should be credited to George H. Day and his Hartford associates, and thus to the honor of Hartford.

The A. L. A. M. collected a large sum of royalties from its own members and used a million dollars or more in the best interests of the development of the infant automotive industry during the most crucial years of its establishment, with the result that the industry developed from the experimental days to that of an established industry centered in this country (unfortunately, not in Connecticut), taking it away from France where it had been dominant.

The association continued to operate until 1911, shortly before the Selden Patent expired, but during those years it accomplished works of tremendous benefit to the industry, a few of which were the creation of many standards, including:

Spark plug screw thread

Fine screw thread

Specifications for most suitable materials for all parts of the car as developed by Henry Souther, who was employed by the A. L. A. M.

Selling to the industry the idea of using heat treatment as a means of toughening as well as hardening steel, as specified by Henry Souther.

Pioneers of Hartford's Early Automobile Industry



GEORGE H. DAY



ALBERT L. POPE



HERMANN F. KUNTZ



FRED A. LAW

Formulating a standard horsepower rating formula used by the States as a means of equitable registration. Collectively advertising the automobile industry.

Holding many shows and exhibitions; also protecting the industry from the machinations of companies financially unsound or having worthless products, to the disparagement of the industry.

Upon the termination of the A. L. A. M., all technical records were turned over to the Society of Automobile Engineers, which up to that time had only experienced a struggling existence, and on this work was established many of the standards now known as S. A. E., such as fine screw threads and numbered specification steels. In those days the A. L. A. M. was known proportionately to what

the S. A. E. stands for today.

The A. L. A. M. made many enemies and various adverse claims have been made regarding it, but the statement I give is the true one and should be recognized as a credit to Hartford and Hartford men, as well as to Connecticut.

Everything started with Colonel Albert A. Pope, as he was the originator and head of the Pope interests in Hartford, and whose memory is forever perpetuated by Pope Park which he presented to the city. It has been said of Col. Albert A. Pope that to him "belongs the credit of making the United States good-road conscious."

Col. Albert A. Pope was ably abetted by his brother, Col. George Pope, who also was prominent in automotive circles.

Albert L. Pope, his son, still a prominent resident, was a factor in early automotive development and was President of the National Association of Automobile Manufacturers in 1907. He is a Director of the "Automobile Old Timers".

Mention has been made of George H. Day's able assistants. Among these were:

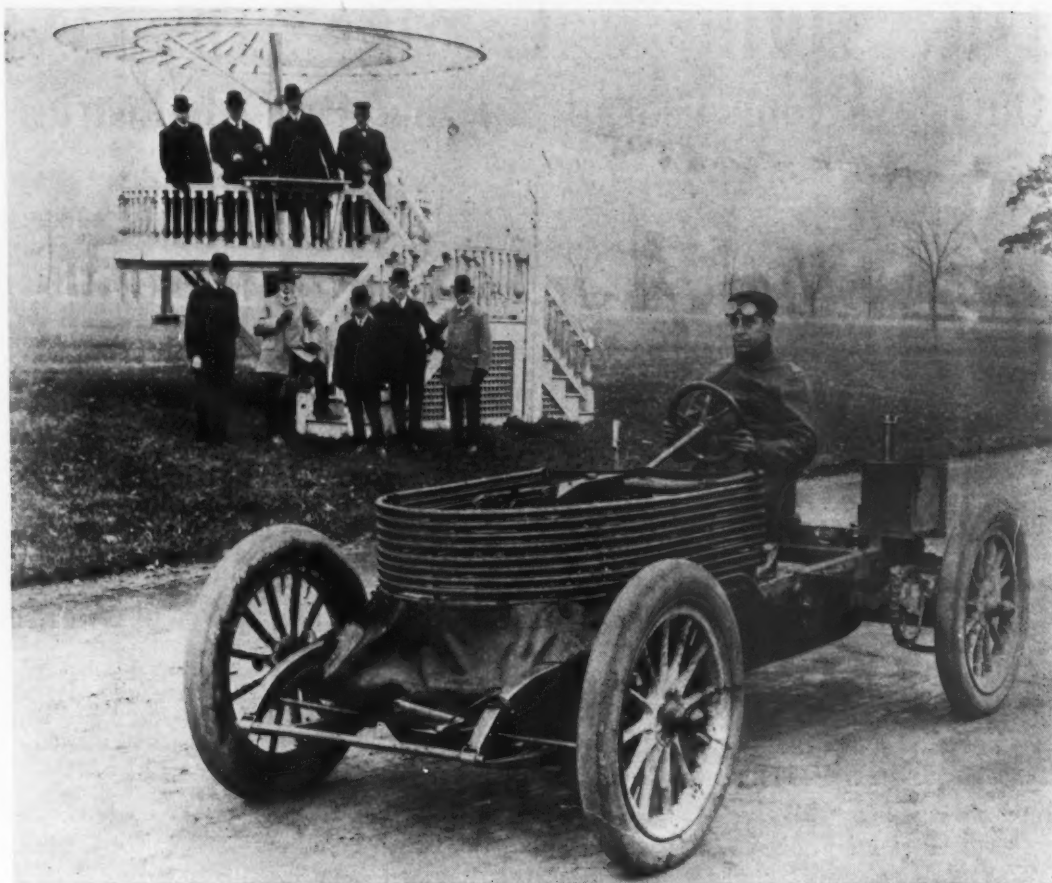
Lt. Hayden Eames, USN, who afterwards also attained prominence with Garford and Studebaker.

Hiram Percy Maxim, who was the entering wedge of automobiling for the Pope company and afterwards attained world-wide prominence by the invention of the Maxim Silencer and as an author of note on scientific subjects. (The Maxim Silencer Company was recently awarded the Army and Navy "E".)

Hermann F. Kuntz, M. E., engineer and patent expert, who was mainly responsible for the Pope company's in-



HIRAM PERCY MAXIM AND BERT HOLCOMB are shown in a pre-1900 Pope gasoline car. Bert Holcomb afterwards followed Law to the Columbia interests and established a record in 1903 from Chicago to New York, as is explained in the accompanying article. James J. Joyce, who was factory manager of the E. V. Company at the time, organized the race and was on the car most of the time. Jimmie Joyce left the Electric Vehicle Company in 1906 and, together with Mr. Cave, joined the forces of the American Locomotive Company, Berliet Division, he as manager and Mr. Cave as engineer.



EDDIE BALD in an Electric Vehicle Company's Columbia racing car at Charter Oak Park, Hartford, in 1906. In the background group are (top row, left to right): Mayor Henney, Hiram Percy Maxim, Milton J. Budlong; (bottom row, left) Fred E. Dayton and (fourth from left) James P. "Jim" Grady who was a me-

chanical and production executive of the Pope Company after 1900 and who was the winner in the Pope "one lung" race at Charter Oak Park. He has continued active in automobile circles in Hartford to this time and is at present an alderman.—Photo courtesy Honiss Collection.

terest in the Selden Patent and the origination, organization and management of the Association of Licensed Automobile Manufacturers, and without whose foresight and perseverance, the former would never have attained prominence or the latter come into existence.

Henry Souther, whose extensive contributions have been discussed elsewhere, was a dominating factor—particularly in the establishment of "standards" when an executive of the A. L. A. M., caused the original of the cartoon to appear in the A. L. A. M. "Digest," which was circulated to automotive technicians as a means of acquainting them with what others were doing. He was president of S. A. E. in 1911.

Colonel Herbert W. Alden, M. E., who has since attained nationwide prominence as head of the Timken-

Detroit Axle Company, and who was recently cited for his work, being awarded the Scott Gold Medal for meritorious service to national defense, and who has the distinction of being the only two-term president of S. A. E. (1912 and 1923). (Col. Alden is shown on page 41 with Henry Cave on the seat of a five-ton electric truck which he engineered and which was probably the first five-ton truck built in this country.)

Milton J. Budlong became president of the Electric Vehicle Company when George H. Day stepped up to the managerial desk of the A. L. A. M. Another scion of the bicycle industry, he had started as a bicycle "scotcher," used the Pope Company and the E. V. Company as a stepping stone to social and financial prominence. He was president of the N. A. A. M. in 1903.

Fred E. Dayton, now secretary of the Conde Nast Press, who after a newspaper career, became advertising manager (later sales manager) of the Electric Vehicle Company. I well remember his appealing to me to help him out of a dilemma in reconciling his sales talk on such problems as—one car having an opposed motor against another one (both Columbias) with the motor vertical, and to make matters worse, one had the conventional right-hand drive of that time and the other (probably the first in the U. S. A.) had controls on the left hand, as became standard practice in later years.

Fred A. Law, after taking part in 1891 in building a number of Daimler gasoline engines in Hartford, was a factor in the early Pope motor car developments and then built, as a pri-

(Continued on page 41)

THE "FOUR HORSEMEN" OF TWI

On Leave Four Years from Four Great Industries

By JAMES W. HOOK, *President, Geometric Tool Company, New Haven*



THE "FOUR HORSEMEN" OF TWI (l. to r.): CHANNING R. DOOLEY, MICHAEL J. KANE, WILLIAM CONOVER, J. WALTER DIETZ

FROM THE PETROLEUM INDUSTRY: The Socony-Vacuum Oil Company granted brief leave of absence to Channing R. Dooley to organize Training Within Industry. That was in August 1940. He still serves as National Director of TWI.

Mr. Dooley brought to TWI his practical experience as Manager of Industrial Relations at Socony-Vacuum and of his earlier years with the Standard Oil Companies of New York and New Jersey, and the Westinghouse Electric and Manufacturing Co.

In World War I, Westinghouse gave him leave of absence to become Educational Director for the Committee on Education and Special Training for the War Department.

In February, 1942, Purdue University recognized his outstanding contribution in the field of human relations by conferring upon Mr. Dooley the honorary degree of Doctor of Engineering.

FROM THE ELECTRICAL INDUSTRY: The Western Electric Co. loaned J. Walter Dietz to the Government in August 1940 to serve as Associate Director of TWI. He still serves in that capacity. In peace time, Mr. Dietz is Industrial Relations Manager of the Manufacturing Department of Western Electric with which company he has been progressively responsible for various phases of engineering, supervisory training and industrial relations in all major divisions.

In World War I, Western Electric loaned him to the War Department to serve on the Committee of Classification of Personnel as Personnel Supervisor for camps in the southwest and as Secretary of the Advisory Board of the Committee on Education and Special Training. Purdue University recognized his accomplishments by awarding him an honorary degree of Doctor of Engineering in February 1944.

FROM A PUBLIC UTILITY: The American Telephone and Telegraph Co. granted leave in 1940 to Michael J. Kane to become Assistant Director of TWI. He took with him 17 years of American Tel and Tel experience in training of supervisors, conference leaders, and instructors. Previously he was personnel manager of the West Lynn Works of General Electric.

In World War I, he served with the Emergency Fleet Corporation training shipyard workers.

FROM THE STEEL INDUSTRY: U. S. Steel loaned William Conover, their Assistant Director of Industrial Relations, to the U. S. Government in 1940 to become Assistant Director of TWI. Mr. Conover still serves in that capacity.

Prior experience was with the Philadelphia Gas Co., with Western Electric as Training Director, and with Lycoming Mfg. Co. as Asst. Foundry Supt.

My purpose in contributing this brief article is to pay tribute to a small, compact, hard-hitting group of industrial men who are behind the worthwhile war time program known as Training Within Industry. It rather amazes me that so small a group has been able to do a national job and do it so effectively.

It is a well known fact that every organization that amounts to anything centers around a personality. It is true whether the organization is a country store, a small industry or a vast commercial enterprise. Strong personalities set the standards, however. There are strong personalities in TWI. They are Dooley, Dietz, Kane and Conover.

It has been my privilege to know "Chan" Dooley for many years. From him, aided by Messrs. Dietz, Kane and Conover, the well-known "Four Horsemen" of TWI, a forceful, driving personality has made its imprint on the TWI men in Connecticut. From my observation, they have



JOHN D. CLARKE
Headquarters Field Representative

A manufacturer of aeroplane accessories, background in vocational and industrial education, represents TWI Washington Headquarters in New England and New York State.

met the challenge well. The conscientious effort and intelligence with which the Connecticut staff of TWI has worked with my own company reflects the intensive training each man has received. I judge my experience is not the exception.

The very fact that over 14,000 war contractors from coast to coast have taken advantage of TWI programs and have devoted close to 15,000,000 man-hours inoculating their supervisors with the basic principles of TWI, is ample evidence that industry finds these programs to be effective production tools.

I recently had occasion to read some unusual statements made at hearings last April before the Sub-Committee of the Committee on Appropriations in the House of Representatives. Mr. Dooley, ("Chan" Dooley as he is better known) Director of Training Within Industry, stated before the Committee, "We hope by the time the war is over, we will have worked ourselves out of a job". He was asked by the Committee Chairman, "Do you think I would be justified in saying as I go back to the House that in my 20 years' experience, I have finally found one Government agency that predicts that it will complete its job in 12 months?" Mr. Dooley added, "By the end of the war. It depends on what the Japs and Germans do".

From another source, a statement was addressed to the Chairman as follows, "I would like to add that in all of the various activities in which we are engaged, this is one (he was referring to TWI), upon which we have only one complaint, and that is that



A. E. WHITEHILL
District Representative

A background in textiles and public utilities, advertising and merchandising; to TWI from position of Executive Assistant of the Manufacturers Association of Connecticut.

we do not do enough of it. We have had absolutely no adverse complaint as to how this activity is run as to its accomplishments".

It interested me to read a letter from the Executive Director of the Manufacturers Association of Connecticut, addressed to A. E. Whitehill, who heads up TWI in this State and Rhode Island, in which this statement was made, "I want to tell you

and your colleagues that there is universal approval of your work in Job Instruction, Job Methods, Job Relations, and Program Development Training. It is the general consensus of management that the programs are very well designed and expertly executed. . . . We believe in your program and we approve of the way in which you have introduced it in Connecticut".

For the first year and a half, Mr. Whitehill was the one-man staff of TWI in Connecticut. He surrounded himself, however, with many capable men from industry, men who gave time unstintingly from their own duties, to spread the gospel of TWI at practically no expense to the government. His full time staff has expanded modestly to meet industrial demands with but 11 men now in Connecticut. They have served over 500 companies and are giving continuing service to many. It is through the cooperation of men in these many companies that close to 40,000 supervisors have participated in the Job Instruction program; close to 11,000 in Job Methods, and 13,000 in Job Relations, the latter two being the most recent programs. More than 31 companies have sent their training coordinators to TWI for Program Development Training to help them locate training needs and devise means to meet them.

That's a sizeable accomplishment for so small a group. Fortunately in increasing numbers managements themselves continue to carry the load after TWI has helped them to get started.

In my probing for additional in-

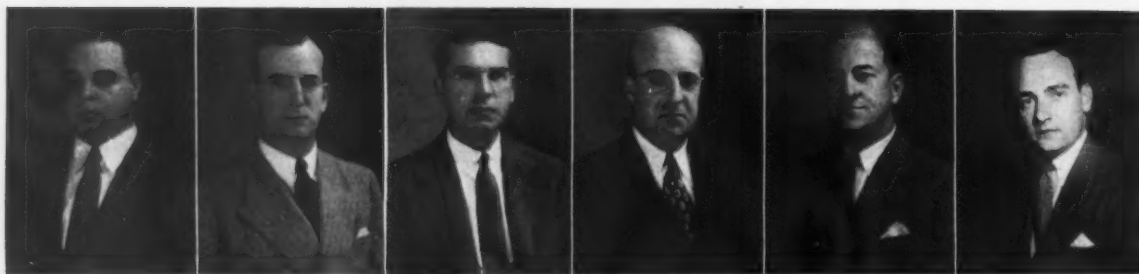
Assistants Heading Up The TWI Programs



(Left to right) **EDGAR C. BROWNELL**, Program Development Training. Background in distributive phases of petroleum marketing; also in insurance. **CHARLES W. LA BLANC**, Job Relations. Background in sales and training methods in private industry; electrical appliances and contracting; the chemical industry. **RALPH C. MCLEOD**, Job Methods. A background in the steel industry; in distribution of food specialties and in

the manufacturing of textiles. **M. WILBUR TOWNSEND**, Management Contact. Insurance background including training of office and field employees; presenting group insurance to industrial management and workers. **ROBERT S. HAWTHORNE**, Job Instruction. Experience in electric appliances, foundries and the printing industry; establishment of industrial accounting systems.

TWI Field Representatives



(Left to right) GEORGE L. HERO, Bridgeport. Safety engineer, further background in metallurgy and as laboratory assistant and in aircraft production. GEORGE W. MURDOCK, Hartford. Varied experience in electric appliances, lighting fixtures and home utilities; the ball bearing industry and printing services. A. GRAHAM SHIELDS, Waterbury. All phases of manufacturing jewelry to Presidency of Company; Secretary of Labor-Management Committee, machine tool industry. HARRY C. HARRIS, New Haven. From the aircraft industry; Depart-

ment of Commerce; Foreign service International Tel and Tel; Liaison Service with British and Australian purchasing Commission; and practice of law. SELDEN G. HILL, Providence, R. I. Years manufacturing electric lamps; supervising production departments; sales and heating equipment, automobiles, and paper products. A. CLINTON BROOKS, II, New London. Background with manufacturers of business machines; supervisory training and personnel work at submarine yard.

formation as to how these men have done the job they have, Mr. Whitehill has explained to me what a highly specialized staff he has. Each man has received extremely exacting training in his respective program and field duties. There has been no time or place for slip shod operations; responsibilities have been nailed down and each man has been developed to meet those responsibilities.

Each technical program is directed by a Program Head. These men have been intensively drilled by the Washington Headquarters Representatives specializing in each individual program. At frequent intervals they have exchanged their experiences with program heads from coast to coast. They keep on the firing line themselves, by presenting the programs to top management representatives. They have maintained a self-critical attitude in constantly striving to do a better job.

As I have become increasingly familiar with the programs and objectives of Training Within Industry and have come to know some of its field representatives, I am inclined to believe that while they are fully cognizant of manpower problems of war industries, they have, however, focused their attention on *MIND-POWER*, the mindpower of all levels of industrial supervision, from top management to the supervisor with no more than a single worker under his direction.

They have kept steadfastly at their stated objective, namely to bring to

(Continued on page 48)

EDITOR'S NOTE: Since receiving James W. Hook's article on "The Four Horsemen of Training Within Industry", we have done a little scouting for a few TWI "specific result" experiences among Connecticut manufacturers. Here are a few statements that add further substantial evidence of a job well done by the TWI staff in Connecticut:

G & O MANUFACTURING CO., New Haven—"Since the inauguration of Job Methods Training, the number of suggestions received increased by 400% and the quality of new ideas improved."

ELECTRIC BOAT COMPANY, Groton—"In the first week of Job Methods, one job that used to consume four men's time was so improved that it can now be done by one man, saving 8,100 man-hours per year. Figured on a 300 day year, it more than offsets the time taken from regular duties by our supervisors taking Job Methods."

BRIDGEPORT BRASS CO., Bridgeport—"In the past year, more than 1,000 of our employees have received instruction in the Training Within Industry program. This has helped educate our department in their teaching methods and in their relations with workers."

U. S. RUBBER CO., Naugatuck—"Not only our own program but the Government-sponsored Training Within Industry sessions have pointed out again how instrumental training has been in keeping the worker satisfied, in getting higher quality, in shortening the orientation period and getting more production faster and in making best use of the people we do have."

GENERAL ELECTRIC CO., Bridgeport—"Due to the Job Instruction program which has been given to over 1,000 of our supervisors, training time on many jobs has been reduced from weeks to days and on others from days to hours. Through our continuous follow-up on all of the TWI programs, results are accumulating substantial savings of manpower, machines and materials."

AMERICAN THERMOS BOTTLE CO., Norwich—"The program has reduced the training time of new employees 25%. Production due to this training has shown an increase of 15 to 20 percent at no increase in cost. The quality of the work has shown improvement and rejections have been reduced. We intend to continue the program in all its phases so as to gain full benefit of increase in production, decrease in cost and saving of manpower."

MACHINERY FOR THE FUTURE

By JAMES Y. SCOTT, President, Van Norman Company, Springfield, Mass.

IN THIS ARTICLE, Mr. Scott comments on the far-reaching changes in the nature and design of machinery which are due in the postwar years and points out the vital importance of these revolutionary machines in maintaining our present economic system. Mr. Scott's remarks were originally addressed to the "Hartford's Week for Connecticut's Future" conference held at Hartford, May 2-4, 1944.

As soon as the war is over, automobiles are going to come back on the market. You know that. Well, what kind of automobiles? Certainly there is going to be some improvement over the prewar models.

But in the main the first postwar models will show little improvement except in secondary ways. The fenders may have a new design, or there may be a new kind of horn, or there may be a new trick to the carburetor. But all you're going to get, the minute the war is over is going to be a prewar automobile dressed up as rapidly as possible with a few postwar gadgets.

Why no more change? Because there won't be time enough. Conversion from peacetime production to war production took long enough; conversion from war production to peacetime production will likewise take a considerable period of time. And manufacturers are going to want to reach their markets as fast as they can. So they are going to take what's available, and what's on hand, add a few more things that look expedient and attractive, and put out some postwar models.

But those *immediate* postwar models are not going to be the *real* postwar automobile models. Not for a minute. Because, in the course of this war, automobile manufacturers have learned a lot of things about machines, and materials, and processes, and methods, that they never knew before. Research and experimentation have been going right on, all through this war. In fact, they have been accelerated. And this has been happening not only in the automobile industry, but in the petroleum industry, where they've been playing with gasoline in ways that were never even dreamed of not so many years ago.

Just to confuse the picture still further, there are some people who are talking today about a combination automobile and airplane. You keep the car in your garage, but you keep the wings out in a hangar on



JAMES Y. SCOTT

the edge of town. When you want to make a real trip, you drive your car out to your hangar, hook on the wings and fly away.

That's why I think the *real* postwar

automobile models aren't going to come on the market until at least five or six years after the war is over. They exist today only as conceptions in the minds of men. It's going to take quite a little time to convert those conceptions into reality.

That, too, is exactly the situation with respect to the machinery manufacturers of this country. They're getting ready to get out postwar models. These postwar models will have a lot of improvements. But there isn't going to be time for many *revolutionary* designs to be developed and put on the market between the cessation of hostilities and the resumption of the production of peacetime goods. So the first models of machines that we're going to get after the war will be prewar models improved with various devices.

But just about the time those models go on the market, the engineers and the designers in the machinery industries of this country are going to be very busy on their drafting boards reducing to black and white the *real* postwar machines that will come along a few years later.



THE STANDARD TOOL of the future will be more flexible than its counterpart of the past. It will have electromatic control of speeds and feeds and overall cutting time will be greatly increased. Here Mrs. Natalie Conradi operates a Van Norman machine at P & W Aircraft.

These will be the machines that may revolutionize many industrial processes. Many of these machines will not represent simply improvements or refinements; they will represent entirely new methods of doing things.

They will be the machines in which the machinery builders of the country present to the nation's manufacturers the full benefit of wartime experience.

We must have what amounts well-nigh to a revolution in machine design in this country, if after the war we are going to be able to maintain the high level of employment which is absolutely necessary to continue our system of open competition and free enterprise, and avoid following the rest of the world into a system of governmental regimentation.

We know that this country after the war is not going to be in any mood to accept a long period of unemployment. I don't think there's danger of such a thing happening in the *early* stages of the postwar period. In the first place, this war isn't going to end on a Thursday with an armistice like the last war. There are too many theaters of war. Then there is the problem of occupation after the conquest.

In the second place, there is developing in this country such a pent-up de-

mand for civilian merchandise that, as war demands slacken, resumption of manufacturing of peacetime products may go forward at an accelerated pace.

The crisis may come quite some time *after* the war is actually won, and that's the period we are talking about. By the time that happens it is vitally important that the machinery builders of this country have ready their *real* postwar models—machines of actually revolutionary type and design, that will do more jobs far better and faster than any machines that were ever seen before anywhere else in the world.

We must have machinery like this to take care of the employment crisis which will occur when wartime savings are spent, immediate civilian demands have been met, and we start to swing back into the old-fashioned competitive basis.

Now, of course, you may ask, "Why does it take better machinery to employ more men?" In theory, better machinery means that you need *less* men to do the same work. And you might add that, in normal times, one of the basic sales arguments of a machine tool builder is that his new machine tool will make possible more production with less manpower.

Let us go into that subject of the relationship between machinery and

employment. There are plenty of people in the country who subscribe to the theory that machines put men out of work. And when an employment crisis comes some time after this war, it may well be that men in high places in our country will say that better machines destroy jobs and that what we need "in this emergency" are large leaf-raking programs.

Thinking people know that the idea that machines destroy jobs is a fallacy.

Look at it historically, for instance. Originally the only jobs had to do with raising food and with fighting. The next jobs had to do with distribution. But through all that period in the history of mankind, there weren't enough jobs available to lift the standard of living of most people above that of the peasant or the serf. It was only when we got machines that enabled men to produce more than they could produce with their own hands that we got more jobs and better pay, and began to develop a higher standard of living.

Let us see how machines—*production machinery*—literally created jobs. There was an inventor who had a workshop in the back end of a barn. He invented a device he thought a lot of people would want. He didn't know what to do about it. He didn't have any money. He went to a man who *had* money, and he got him interested. So the man who had money, and the inventor who had an idea, went into partnership, and they brought out a new product.

How far did they get with that product? This depended upon the price at which they could sell it. What determined the price? Partly the materials but, to a large extent, the *production machinery*.

When they got machinery that made it possible for them to produce the product at a price that large numbers of people could afford to pay, they went to town. And *that* was when they began to employ large numbers of people.

This is what happened in the automobile industry, in the radio industry, in the refrigerator industry, and in dozens of other industries.

Mankind got along, somehow or other, for a good many years without automobiles, refrigerators, or radios. But people wanted these things. When manufacturers got machinery that enabled them to cut costs so they could get their prices down to where people could afford to buy, they got volume and when they



PRATT & WHITNEY GEAR GRINDER is putting a .0002" precision on the face and spacing of these gear teeth, destined for an army automotive vehicle. The Pratt & Whitney hundred-thousandth of a second camera has "frozen" the action in full flight.

got volume, they blossomed out as large-scale employers. Machinery turned out to be the magic by which an idea in the mind of an inventor became the bread and butter of millions of workmen.

Doesn't that point the way to what we have to do when our real postwar employment crisis materializes? Doesn't that point out the economic function of the machine in our whole social philosophy?

The function of the machine is to *make things cheaper*.

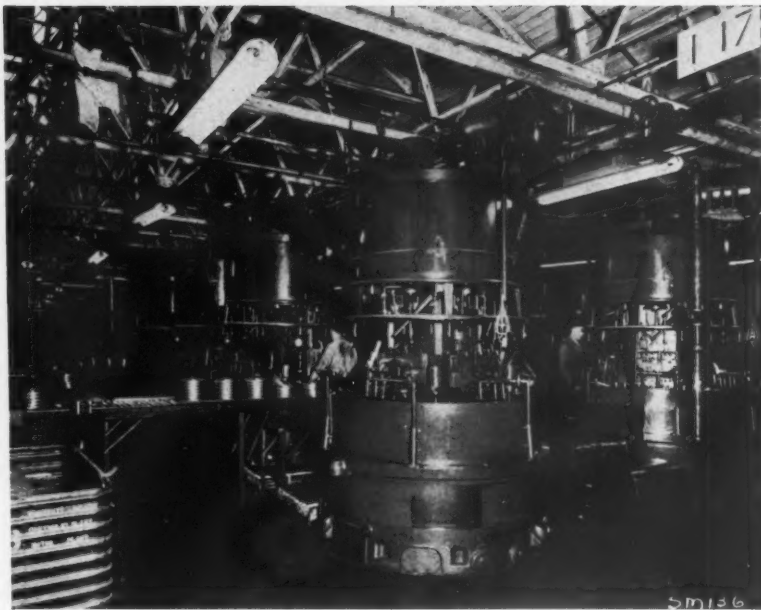
By "cheaper", I mean to make an item of the same quality sell for less—or to make an item of better quality sell for the same amount it used to sell for. In other words, the function of machinery is to enable more people to get more for their money. Insofar as machinery accomplishes this job, it adds to employment.

But, here is a paradox. For instance, along comes a machine tool builder with a semi-automatic machine. He says to the manufacturer, "One operator can run two of these machines. On your present machines it takes an operator per machine. Buy our new machines and you can fire one operator."

All right. The manufacturer buys the new machines. Suppose he does that sort of thing all through his plant. If he does it and thoroughly enough, he will cut his costs so far that he can under-bid his competitors. When he is successful in underbidding his competitors, he gets a whale of a lot more business. When he gets a whale of a lot more business, he has to hire a lot more men. He has to hire back not only the men he laid off, when he switched to the new, more efficient machines but he has to hire far more men than he ever had working for him before.

And this sequence isn't limited. It goes on and on. The more you can increase productivity, the more you can lower the price. The more you can lower the price, the greater the volume. The greater the volume, the more you can lower the price. These two factors keep interplaying, one against the other, until finally a business taps really big mass markets and becomes one of the nation's great employers.

Increased productivity per man per hour is the key to the postwar employment problem and this will be made possible by remarkably improved production machines and equipment, not immediately postwar, but within



BULLARD MULT-AU-MATIC production has always been phenomenal. In this battery, eight machines produce 425 flywheels per hour. The process machine will be more and more used in America during the next decade to lower production costs and offset higher labor costs.

not so many years after the war begins to break up, and we start back toward approaching a competitive situation.

But do not get the idea that, in this postwar competitive situation, wages are going to be knocked down. I do not think it is going to happen that way. Wages, in terms of dollars at least, are going to stay high.

It has been previously stated that what we wanted to meet the real postwar emergency was more productivity per man per hour and that improved machine design would largely bring about that result.

I also assume that we will have the cooperation of the factory employees of this country, in bringing about that result. Machines alone can't do the job.

It's going to take the cooperation of men who are willing to get out of our machines all that the machine tool builders put into them.

Now, let's look at a preview of the machine tools of the future as they will develop and appraise their relative importance in this very exciting production world which must follow the cessation of hostilities.

The biggest problem facing most manufacturers is the increase in production cost in the post-war period as compared with the pre-war period.

Recently, the vice-president of

Westinghouse made the statement that he anticipated pre-war costs to be up 25 to 40%. Therefore, if we are to maintain our markets at approximately the pre-war price levels, increased production per machine and, of course, per man must be forthcoming.

This seems to call for process machinery instead of production machinery. Here is a definite illustration: In one of the larger aircraft factories of this country cylinder heads move down through a machine over 100 feet long. The cylinder heads never leave the machine but come out finished and complete, all operations being performed automatically. That is a process machine.

In this huge machine are turning, drilling, tapping and reaming units, as well as other functioning elements, all of which go into producing a finished product, but it is a process machine. In other words, it completes the unit instead of, as in most of our present machine tools, doing one operation on one type of machine and then moving to another type.

The process machine is going to become more and more used in America in the next decade. The reason—the higher costs of labor. The result of process machinery—lower costs.

As against the so-called process machine which will be used in the high

(Continued on page 55)

MORE "E" FLAGS FLY



"LITTLE GIANT" among Waterbury concerns to receive the "E" is Lea Manufacturing Company which operates with only 50 employees but produces greaseless polishing and grinding compounds used by 95% of the nation's war production plants. Started by Robert S. Leather, president of the Company, 22 years ago with one assistant, the concern grew steadily as more and more industries discovered the merits of its products.

Since the war Lea's output of compounds has expanded four-fold. In addition, the company carries on extensive research in working out polishing and buffing problems for other manufacturers. Compounds for removing burrs from machine gun barrels, for cleaning off synthetic lacquers from rejected articles without injury to the surface, and the improvement of a polishing method which has increased one type of fuse production by more than 200 per cent are but a few of the ways in which Lea technical skill has speeded up the flow of war goods.

The "E" ceremonies were held June 27 with Mayor Monagan acting as master of ceremonies and giving the address of welcome. Major Arthur H. Murtha, USA, Springfield Ordnance District, presented the "E" flag to President Leather. Lieutenant Raymond Smith, USN, Industry Cooperation Division, New Haven, represented the Navy and presented pins to Frances G. Stuart, Salvatore S. Merluzzi and Henry P. Stanco, who accepted the individual honor on behalf of all employees.

AWARDING OF THE ARMY-NAVY "E" to Barden Corporation, Danbury manufacturer of bearings, was accompanied by a surprise announcement as Theodore H. Barth, president of the corporation, told the audience of 2,000 that not only does Barden plan to remain in Danbury but the Norden Laboratories Corporation contemplates locating in that city after the war.

The Norden Laboratories Corporation is the research branch of the Norden group of industries of which Barden is an affiliate.

In a colorful program, attended by Carl L. Norden, inventor of the famous bombsight which bears his name, Marian Anderson, noted contralto, and high-ranking Army, Navy, civic and business officials, the "E" flag was presented by Rear Admiral Wat T. Cluverius, USN (ret.). F. E. Ericson, Barden vice-president, accepted the award and in congratulating employees said, "The extra effort that you have given, motivated by patriotism and the desire to do the job right, has been the most important factor in the winning of this "E" pennant."

Brigadier General Thomas E. Troland, USA, presented "E" pins to employee representatives Mrs. Ruby Mackenny, Mrs. Dorothy Hartell, John Golden, George Perdrizet and Miss Corinne Bergstrom. Mr. Perdrizet, spokesman for the group, acknowledged the award and stated in part, "The



PHOTOS ON THIS PAGE: (Top) Major Arthur H. Murtha presenting the "E" burgee to Robert S. Leather, center, president of Lea Manufacturing Company, Waterbury, and Ernest Martin, employee representative.

(Center) Barden Corporation, Danbury, ceremonies. Left to right, Rear Admiral Wat T. Cluverius, USN (ret.); T. H. Barth, president of Barden; Brigadier General Thomas E. Troland, USA; F. E. Ericson, vice-president of the corporation and Captain Frank L. Busey, USN.

(Bottom) Principals at Chromium Process "E" ceremonies, left to right: Norman Tice, president; Lt. Comdr. William B. Shope, USNR; Lt. Col. Thomas L. Hapgood, Katherine Wheeler, Jane Pytel, Charles Frager, Walter Oliwa, William Hosking, Lillian Rapuano, Anna Frager, Catherine Fleming, Manual G. Almeida, PFC.

(Right, top) E. INGRAHAM COMPANY, Bristol: (l. to r.) Lt. Elisha P. Douglass, USNR; Admiral E. C. Kalbfus, USN (Ret.); Howard S. Dutton with 50 yrs. of service; Brig. Gen. Thomas E. Troland, USA; Dudley S. Ingraham, vice-president; Albert DeCapua, president, Local 260, U.E.R. & M.W.A.; Miss Carrie H. Zebuski, 34-year veteran employee; Edward Ingraham, president; Major Norman K. Ingraham, president, Ingraham Canadian Clock Co., Ltd.; and Ensign Joseph T. Ingraham.

(Below) Holding "E" flag awarded to Automatic Signal Corporation, East Norwalk, are, left to right: Raymond I. Banta, President of Automatic Signal Corporation; Colonel Eugene V. Elder, Commanding Officer, Signal Corps Procurement District, Philadelphia; Colonel Lott R. Breen, representing Governor Raymond E. Baldwin; Lieutenant Commander William B. Shope, U.S.N.R., Bridgeport Field Officer for Procurement and Material; Pfc. Fred Pote, wounded veteran of the Tunisian campaign; and Mrs. James M. Kelley, representing the employees.

bearings we make will not be trade-marked 'made in Japan' nor in Germany but they will have been made in the United States of America, land of the free and emancipator of the world".

At the close of the program, Captain Frank L. Busey, USN, dedicated a service flag honoring Barden employees who have entered the armed forces. The ceremonies were followed by a luncheon for invited guests.

★ ★ ★

CHROMIUM PROCESS COMPANY, Derby, received the "E" from

Lt. Col. T. L. Hapgood on July 6. Colonel Hapgood, commenting on the success of the invasion and the important role played by the Company in making the landings possible stated, "... This is only the beginning. From here on you must produce and ship, and ship and produce, exactly as your orders read."

Lieut. Commander William B. Shope, with the aid of PFC Manual G. Almeida, wounded war veteran, who participated in the Tunisian invasion, Sicilian campaign as well as the Italian campaign and who wears the Purple Heart for wounds received in the latter, pinned token "E" emblems on Catherine Fleming, Anna Frager, Lillian Rapuano, Katherine Wheeler, Jane Pytel, Charles Frager, Walter Oliwa and William Hosking.



Norman Tice, president of the Company, said in part: "This is a very happy occasion for myself and all the employees of the Chromium Process Company."

"We feel highly honored and proud to receive this recognition of our small part in supplying our fighting men with the tools of war. This presentation, you will note, is to the men and women of the Chromium Process Company and to them I express our appreciation for the teamwork and willing cooperation that has won this token of acknowledgment."

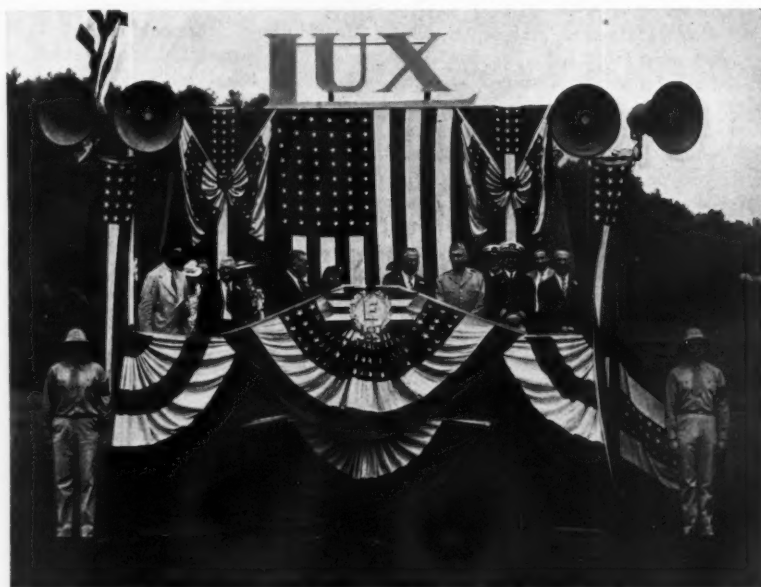
The Chromium Process Company produces in peace time a high grade chromium plating for manufacturers serving the New England states. The product is used extensively on automobiles, plumbing and builders' hardware, electrical parts and novelties.

The company has developed methods and equipment for an economical way of producing chromium plating on small bulk items. Since the war began it has devoted its equipment and facilities to war work.

★ ★ ★

THE LUX CLOCK Manufacturing Company on June 28th became

(Continued on page 39)



"E" DAY AT LUX CLOCK: (Front row, left to right) Mayor John S. Monagan; Paul Lux, president; Herman J. Weisman, master of ceremonies; Fred Lux, vice-president; Lt. Col. Thomas L. Hapgood; Lt. Comdr. Raymond T. Fish, USNR; Herman F. Lux, secretary.

NEWS FORUM

This department includes digested news and comment about Connecticut Industry of interest to management and others desiring to follow industrial news and trends.

TWO NEW DIRECTORS and two new officials have been named at Whitney Chain and Manufacturing Company, Hartford. Roger E. Gay, president of Bristol Brass Corporation, and Robert E. Carroll, vice-president of Arrow-Hart & Hegeman Electric Company, Hartford, were elected to the board of directors, filling vacancies left by the resignations of Thomas E. Hewes of the law firm of Hewes, Prettyman and Awalt of Hartford and William J. Gallon of the firm J. P. Stevens and Company, New York textile merchants.

Gordon F. Gilmore was appointed company treasurer and Arthur R. Shevlin general manager. Mr. Gilmore, who joined Whitney last year, previously had been assistant treasurer at Pitney-Bowes Postage Meter Company, Stamford, and Mr. Shevlin, who came to Whitney a little over a year ago, previously had been associated with Taft-Pierce Manufacturing Company of Woonsocket, R. I.

★ ★ ★

JAMES A. TAYLOR, vice-president and general manager of Hartford Machine Screw Company and vice-president of the Manufacturers Association of Hartford County, has been elected president of Taylor and Fenn Company, Hartford, filling the va-

cancy caused by the death of Charles L. Taylor.

Other appointments included the advancement of Halsted W. Hull to treasurer from assistant treasurer and the naming of William C. Ball, vice-president, to serve also as general manager. Leland G. Harwood was chosen secretary to succeed John H. Buck, who has resigned, but who will continue as a director. Charles B. Cook was elected a director. He is vice-president and general manager of Royal Typewriter Company, Hartford, and chairman of the board of the Silent Glow Oil Burner Corporation of Hartford.

★ ★ ★

J. KELL BRANDON has been elected president of Ensign-Bickford Company, Simsbury, after serving for nearly two years as executive vice-president. He succeeds Henry E. Ellsworth, who was made chairman of the board, and who resigned as president because his activities have been restricted in recent months for reasons of health. Robert E. Darling, former vice-president and secretary, was made executive vice-president, and Stoughton S. Ellsworth, former assistant secretary, was named secretary. Other officers of the company remain unchanged.

GILL ROBB WILSON, aviation editor of the New York Herald Tribune, at a recent meeting of Connecticut Chapter, National Aeronautical Association, in Hartford, predicted the future of commercial aviation lies in cargo transportation. He told of a large concern dealing in women's clothes which expects to save money by transporting hundreds of dresses in planes equipped with long racks, thus eliminating much costly packaging and pressing.

Commenting on a development of this nature, Mr. Wilson said: "Airplanes are likely to make more money hauling the dress than hauling the woman, for cargo is the foundation of successful aviation of the future."

Mr. Wilson was introduced by Francis S. Murphy, NAA counselor for Connecticut. Dexter D. Coffin of Windsor Locks, president of the new Connecticut Chapter, said the organization planned to be an active one and wishes to contribute to the solution of aviation problems that confront the state.

★ ★ ★

FRANK H. WHIPPLE, president and co-founder of Olds and Whipple Inc., Hartford, died recently at his home in Hartford after a long illness. He was a nationally known figure in the commercial fertilizer industry.

A native of New Braintree, Mass., Mr. Whipple came to Hartford at the age of 21 to establish the business of Olds and Whipple with his late brother-in-law, Alfred A. Olds. Mr. Whipple kept up an active interest in the 67-year-old firm until several years ago.

He was also president of the Otee Tobacco Company and the Clarest Company, vice-president and director of the Hartman Tobacco Company and a director of the National Fertilizer Association.

A SERVICE — "MESHED TO CLICK"

In these days of shortages, it hasn't been uncommon for manufacturing assignments in many industries to be delayed by the lack of one vital "part" necessary to the completed whole.

As applied to Folding Paper Boxes, for example, printing presses cannot print unless boxboard of the right caliper is on hand when needed. Disappointments to Robertson customers have been reduced to a minimum—because Robertson box factory presses and machinery are fed by the adjoining Robertson paperboard mill.

All operations for a total job are centrally controlled—"meshed to click." Worth remembering—isn't it?

**ROBERTSON
PAPER BOX COMPANY**
MONTVILLE, CONN.
NEW YORK OFFICE
4201 CINCINNATI
AVENUE



IF they would all remember, as long as they live, what Cervantes said, which is both a truth and a rule of conduct, there would be no need for fidelity bonds.

THE TRAVELERS INDEMNITY COMPANY

HARTFORD, CONNECTICUT

All forms of Fidelity and Surety Bonds

the problem

*Lighting
modernization
in factory
working area*

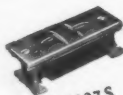


the answer

WIREMOLD SIMPLIFIED, FUNCTIONAL WIRING METHODS



No. 2127
Plug
Receptacle



No. 2127S
T-slot
Receptacle



No. 2127P
Polarized
Receptacle



No. 2127H
Midget
Twistlock
Receptacle

CAPACITY:
Without Receptacles, up to 10 No. 12 R.C. Conductors. With Receptacles, up to 6 No. 12 R.C. Conductors.

• Versatile and widely adaptable Wiremold methods save time and money and assure the efficiency of the finished job. Here, for example, Wiremold No. 2100 Plugmold, spanning overhead beams, has been used as a complete wiring system for industrial fluorescent units. Connections to lighting units are made by simply plugging in to the Plugmold, greatly simplifying maintenance of fixtures.

Similar time and cost saving ideas are constantly being developed by Wiremold engineers and contractors.

Write for latest Industrial Bulletins and Data Sheets.

KNOW YOUR
WIREMOLD
AND YOU KNOW THE ANSWERS

THE WIREMOLD CO., HARTFORD 10, CONN.



TWO LETTERS from Naval authorities have been received by Corbin Screw Corporation of the American Hardware Corporation praising its employees for their excellent performance in production of materials and component parts for landing craft and for co-operation given to the Office of the Inspector of Naval Materials at Hartford. The first message came from Rear Admiral E. L. Cochrane, U. S. Navy, and the second from Capt. A. K. Atkins of the Office of the Inspector of Naval Materials.

The company's publication has announced the appointment of Gregory F. Brown as training director by Earl Kisselbrack, personnel manager. Mr. Brown for six months was assistant training director and executive member of the Corbin Screw transportation committee.

★ ★ ★

NEW BRITAIN MACHINE COMPANY has been awarded a certificate by an insurance company testifying to the completion of 795,422 hours worked without a lost-time accident. This is believed to be the outstanding safety record thus far developed in Connecticut for 1944.

★ ★ ★

WAR MANPOWER COMMISSION officials have informed the Hartford Mayor's War Manpower Committee that a steady improvement in the city's manpower situation may result within a short time in Hartford being removed from the No. 1 critical shortage labor area classification. New England Regional Director Joseph A. Smith of Boston, State WMC Director William J. Fitzgerald and Area Director William G. Ennis spoke with confidence of the strides which have been made locally to overcome the labor shortage.

The situation is improving all the time, said Mr. Fitzgerald, while Mr. Smith added that if the trend toward a balance of labor demand persists there is a good possibility the city may get into a No. 2 classification. At the time the officials made known their views, the Hartford manpower shortage totaled 3,700 workers. The situation is believed to have further improved since then.

★ ★ ★

ERIC JOHNSTON, president, United States Chamber of Commerce, has named Carl A. Gray, Plainville manufacturer, a member of the com-

mittee on the department of manufacture. Robert Gaylord, president, National Manufacturers Association, has named Mr. Gray to the committee on veterans' employment.

★ ★ ★

RAYMOND B. PROUTY, West Hartford, and Norman W. Stirling, Plainfield, N. J., have figured in changes made at Whitlock Manufacturing Company, Hartford, it was announced recently by President W. C. Beckley.

Mr. Prouty has been named vice-president in charge of production. He has been associated with the concern since 1925 and for the past two years has held the position of assistant vice-president.

Mr. Stirling recently joined the company as sales manager. He is a native of Plainfield. After the last war in which he served as a lieutenant (jg) in the Navy, he was associated with his brother in the Stirling Machine & Boiler Company of Brooklyn. Until recently he was with M. W. Kellogg Company, New York.

THE RESIGNATION of Dr. Lawrence W. Bass as director of the New England Industrial Research Foundation, to become associate director of research of the Air Reduction Company, Inc., and the United States Industrial Chemicals Company, Inc., has been announced by Albert E. Marshall of Providence, president of the foundation.

Dr. Bass came to the foundation on May 1, 1942, shortly after the research organization had been established under auspices of the new products committee of the New England Council, of which Dr. Karl T. Compton was chairman. Mr. Marshall stated that Dr. Bass would have his headquarters in New York, but that he would continue his association with the foundation in the capacity of technical consultant.

★ ★ ★

SOUTHERN NEW ENGLAND Telephone Company, New Haven, declared a dividend of \$1.50 on the capital stock for the second quarter, payable July 15 to stockholders of record June 30.



HOWARD H. BRISTOL, president of The Bristol Company, Waterbury, presents Walter H. Roberts, oldest employee of the company in point of service (45 years) with a Quarter Century Club pin and gifts of twenty-five silver dollars and a \$50 War Bond. The presentation was made at a dinner held on June 14th at the Waterbury Country Club, which inaugurated Bristol's Quarter Century Club and feted 100 employees who have been with the company 25 years or more. J. A. H. Peterson (extreme left) personnel manager, looks on. Mr. Peterson has been with the company 37 years. On the extreme right is J. B. Kelsey, Supply Dept. Manager, the second oldest employee in point of service (43 years). Each of the charter members received the Quarter Century Club pin and a gift of twenty-five silver dollars. Four employees who have been employed by the company for 40 or more years received an additional gift of a \$50 War Bond. They were W. H. Roberts, J. B. Kelsey, L. S. Chase and G. C. Mertelmeyer.

★

HUBBARD RICKERD AND BLAKELEY

**INDUSTRIAL MANAGEMENT &
MECHANICAL ENGINEERS**

offer their services to
Connecticut manufacturers in the following
capacities —

Engineering Services

Heating
Ventilating
Plumbing
Electrical Work
Air Conditioning
Boiler Plants
Water Pollution

Industrial Management Services

Cost Control and Reduction
Jigs and Fixtures
Line Production
Plant Layouts
Production Control
Project and Machine Design
Time Study and Job
Evaluation

Information on Request

**HUBBARD, RICKERD
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**110 WHITNEY AVENUE
NEW HAVEN 10, CONN.**

★

Practical

Design and Development



Mechanical • Electrical • Optical • Recording • Amplification • Communication

{ Our Design and Engineering Section, which is doing important work for the Army and Navy, has now some available time for work for others. }



1. Machine and mechanical design including complete layout and detail drawings, construction of prototypes, model making, and the manufacture of duplicate machines.
2. Electrical equipment development including design, drafting, and assembly of both simple and complex circuits.
3. Mechanical and electrical devices involving electronics, including audio amplifiers, photo-tubes, telephone circuits and creative design and production of recording equipment having both crystal and magnetic recording and reproducer heads.
4. Optical work including the design and construction of various optical units in the projection field including photographic technique, motion picture, and optical systems involving condensers, prisms, and associated reflector equipment.
5. Communication equipment, electrical counting and calculating devices, including communication devices for producing or operating from perforated, inked, and coded tapes of various kinds.



WRITE TO W.E. DITMARS, PRES., AND AN APPOINTMENT WILL BE MADE WITH OUR CHIEF ENGINEER

THE GRAY MANUFACTURING COMPANY

Hartford, Connecticut • 230 Park Avenue, New York

VALUE YOUR VOTE

NEW VOTERS



TO VOTE IN CONNECTICUT YOU MUST—

Be an American citizen over 21; live in Connecticut 12 months and in your town 6 months; go to your Board of Registration when voters are made. Watch the paper for dates!

If you are in the Armed Forces, write or go to your Town Clerk at any time for an application form (your family can ask to have it sent to you.) Sign your application, if you get it by mail, in the presence of a commissioned officer, and return it to your Town Clerk.

ABSENT VOTERS



IF YOU ARE IN THE ARMED FORCES—

You can use Connecticut's Absentee Ballot anywhere—even in the State (you or your family can ask the Town Clerk to send it to you.)

The Connecticut Absentee Ballot lists state and national offices. The Federal War Ballot lists only the national offices; it can not be used until after Oct. 1, 1944, and then only if you make an affidavit that you have applied for but not received your state ballot.

IF YOU ARE A CIVILIAN—

OUT OF THE STATE, you must fill out your application and send it to your Town Clerk.

ILL, or PHYSICALLY UNFIT, you must fill out your application and send it to your Town Clerk and you may use this ballot within the state.

• Your vote is strictly confidential! •

WISE VOTERS



VOTE THOUGHTFULLY EVERY TIME—

If you want your vote to count the most, join a party so you can vote in the caucuses and primaries and help select the candidates. You may still vote as you please on Election Day. (Ask your Registrar of Voters by mail or in person.)

If you don't vote at least once every 4 years, you will lose your vote and have to be made a voter all over again.

☆ **FREE VOTES MAKE FREE MEN** ☆

(OVER)

FLYER BEING DISTRIBUTED by Connecticut League of Women Voters summarizes voting regulations. Reverse side gives political calendar of events for both parties. A limited number of copies for in-plant distribution may be had by addressing the League at 410 Asylum Street, Hartford.

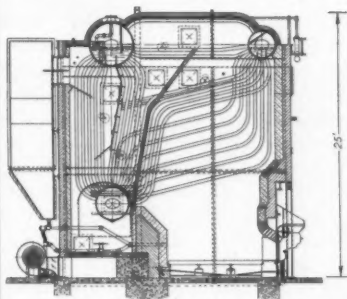
EXPERTS FROM GOVERNMENT AGENCIES and private industry are winning praise for the work they have accomplished in cutting down the issuance of needless government questionnaires. Since December, 1942, when Congress started them on their campaign, they have eliminated 1,165 out of 9,697 questionnaires submitted to them for review.

Fifty-eight of the experts give their full time to stemming the flow of forms to the country's industries and another 208 are businessmen who serve on voluntary advisory committees. The Connecticut Manufacturers Association was represented on one of these voluntary committees.

Their biggest current problem is the simplification of contract termination and renegotiation reports. Already they have helped put into use a standard form which has speeded up renegotiation procedure by three or four weeks, and they are now giving their attention to streamlining termination statistics.

Accomplishments of the experts have done much to wipe out the stigma connected with official questionnaires. Public feeling was running high against the questionnaires at one time and so strong was the wave of resentment that many businessmen refused to answer even essential reports. Now, however, Budget Bureau of-

BIGELOW



A side sectional view of one of two Bigelow Type F steam generating units purchased by a textile company. Each is rated at 20,000 pounds of steam per hour. The installation includes spreader type stokers, soot blowers, cinder fly ash trap and coal handling equipment.

THE BIGELOW COMPANY

172 River Street
New Haven 3, Connecticut

AT IT FOR Years!



Graybar Representatives hit a high average for length of service. They know their lines and know your problems. Why not take advantage of this experience?

3504-C

Graybar ELECTRIC COMPANY

344 Capitol Avenue Hartford, Conn. 25 Union Street New Haven, Conn.
Hartford, 2-8266 New Haven 8-4163

"Everything Electrical"

ficials report happily that complaints from business are on the ebb.

★ ★ ★

THE WAR MANPOWER COMMISSION and the Federal Security Agency have set up a five-point vocational training program designed to provide discharged veterans of the present war with a skill at which they may earn a livelihood. State WMC Director William J. Fitzgerald, in urging veterans to take full advantages of the opportunities offered to them, said they can obtain training as production workers in war plants, supervisors, technical specialists and agricultural workers by applying to the agencies mentioned above. He described the program as providing training which will be of benefit to the veterans and also help the war effort on the best occupational level of individual qualification.

★ ★ ★

DIRECTORS OF NORMA-HOFFMANN Bearings Corporation, Stamford, have elected Frederick W. Mesinger to a vice-presidency. He succeeds Harold J. Ritter, whose resignation took effect June 30. Mr. Mesinger has been associated with the company over 24 years and was district manager of the New York office during the past 16 years.

The new vice-president is now serving on the governing board of the local section of the American Society of Mechanical Engineers and held the office of vice-chairman of the

Southern New England Section of the Society of Automotive Engineers, besides serving on several of the society's national committees. He is an associate fellow of the Institute of Aeronautics Sciences, and a member of the Army Ordnance Association, and the Advertising Club of New York City.

★ ★ ★

JAMES F. ROBINSON, 88, formerly of Hartford, died recently. Many years ago he conducted the Leader Manufacturing Company of Hartford, located on Asylum St., a concern which placed on the market several of Mr. Robinson's patents. He was well known in this state where he had many business associates. He came to Brooklyn, Conn., to live with his grandparents at the age of 16. He took business training, became an expert bookkeeper and found employment with the Williams Brother Manufacturing Company of Naubuc, later becoming associated with J. B. Williams Company, Glastonbury, before establishing the Leader company.

★ ★ ★

THE APPOINTMENT has been announced of Emmet F. Harding as assistant sales manager of Corbin Screw Corporation of American Hardware Corporation. He will serve under direction of Elliott Paddock, sales manager, and will specialize in problems of market research and sales planning for postwar business. He has had 21 years experience in the hardware and mill supply business, formerly

being associated with Henry Disston and Sons of Philadelphia.

★ ★ ★

A COMPLAINT has been filed in the Supreme Court by Governor Ellis Arnall of Georgia against 20 railroads asking damages of \$60,750,000 for his state and its shippers and seeking to force equalization of freight rates between the South and other sections of the country. He said the discriminatory and detrimental freight rate structure now imposed upon Georgia and the South is "the creature of pernicious sectional politics." Final hearings are now being held before the Interstate Commerce Commission on cases involving sectional differences in freight rates, which have been before the commission for five years and are the most extensive cases in the ICC history. Southern governors long have been fighting what they call discrimination against those parts of the country which are not in official territory, the section in the territory being, roughly, the northern and western states.

★ ★ ★

DURING THE 11 MONTHS ended May 31 the New Haven area office of the Smaller War Plants Corporation placed a total of 524 contracts valued at \$22,263,902, according to District Manager Kenneth L. Childs. During that period \$1,141,690 was loaned through a sub-bureau of the office and 525 concerns made use of the office's engineering and technical



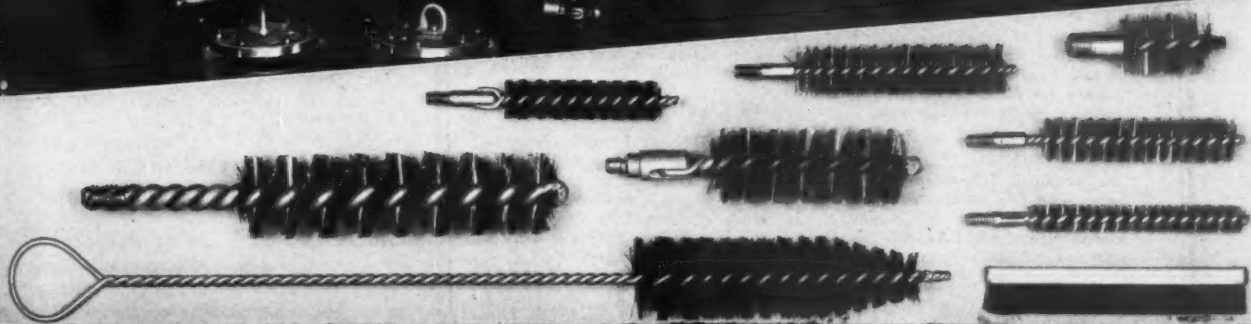
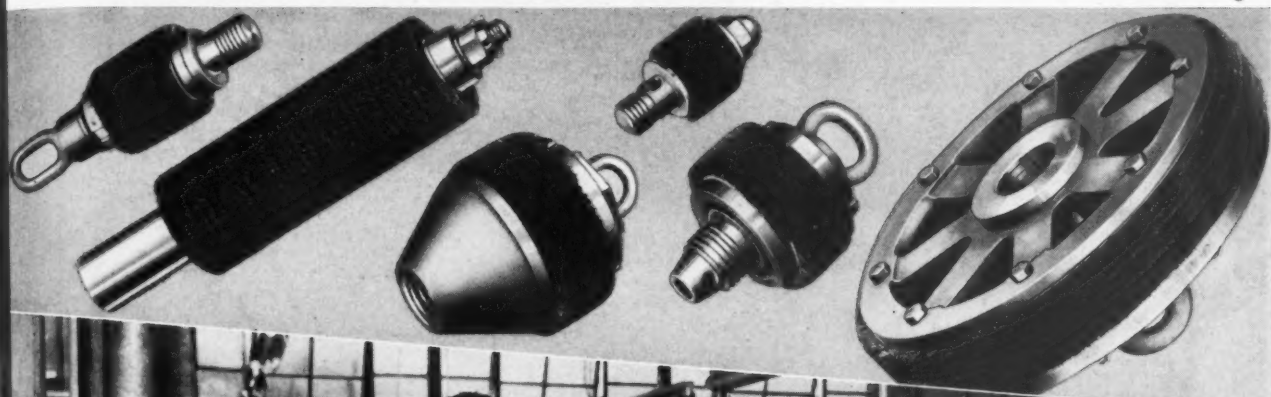
This is the time to consider a specific cost reduction and cost control program. One of our engineers will be pleased to call on you for a detailed discussion.

R. H. WINSLOW AND ASSOCIATES

36 Pearl Street, Hartford, Conn.

Fuller Brushes - all out for Victory

TWENTY MILLION GUN CLEANING BRUSHES from the Smallest to the Largest



The FULLER BRUSH Company

INDUSTRIAL DIVISION,

3590A MAIN STREET

HARTFORD, CONN.

staff. In the 11 months, prime contracts valued at \$16,070,776 and sub-contracts worth \$6,193,126 were placed in the district.

★ ★ ★

H. LEE MURPHY, president, has made public the appointment of Rollin G. Plumb to be general manager of the Eagle Lock Company at Terryville. Mr. Plumb, prominent in the hardware industry, has been connected with Eagle Lock since 1920.

★ ★ ★

INTERPRETING BOND SALES in terms of "nest eggs" for future security, The Miller Company, Meriden, dressed a group of their girls as farmerettes and had them tour the factory giving each employee an egg with a letter reading in part, "Fellow Worker: Here is an egg for you—eat it now or take it home—it's already cooked and packed full with vitamins."

"You'll probably wonder why of all things we hand you an egg. Well, we wanted to remind you of the nest egg which is always left in place, regardless of the number of eggs taken from the nest."

"It is now more important than



A BEVY of Miller farmerettes, left to right, Frances Nawrocki, Frances Tylec, Peg Allard, Mildred Kaiser, Terry Ambrosette, and Selma England lined up for delivery of their war bond "nest eggs" with Mr. W. O. Hughart, chairman, Meriden Manufacturers' Association War Bond Committee.

ever that you remember the nest egg and that you plan for a nest egg of your own for your family protection and future security. And what better

'nest egg' than War Bonds—four dollars on maturity for every three dollars you invest!"

★ ★ ★

THE ELECTION of Wallace C. Husted, manager of the Waterbury Manufacturing Division of the Chase Brass & Copper Company since 1935, to the newly created position of vice-president in charge of all Cleveland operations of the company was announced recently by President Charles E. Hart. Thomas H. Chamberlain, assistant manager of the Waterbury Division, will now be in charge of all operations at that plant.

Mr. Husted was born in Norwalk and his first position with Chase was in connection with cost accounting procedure at the Waterbury plant. One month after starting he was placed in charge of all accounting and office work. Later he was named factory manager of the Waterbury Manufacturing Division and then manager of the entire division.

★ ★ ★

ARTHUR S. HYDE of Hartford, prominent in manufacturing circles of the state, died recently at the Hartford Hospital after a long illness. He started his business career under his father, Salisbury Hyde, in Worcester, Mass., became president of the Whitlock Pipe Coil Company, now the Whitlock Manufacturing Company, and later was connected with New

Make Your Own **PROCEDURE AUDIT** —with this free Checklist

1933, serving 50 to 60 advertising executives, I put out Westport Self-Appraisal Kit (\$40.00, but out of print), started them finding their own weak spots.

1937, I condensed its checklist to one page; broadcast it free; got so many repeat calls that I had to run it again in 1939 and have just now got a 4th edition from the printer.

Now Free to Any Executive

204 items of procedure classed in 21 groups; general and sales management rather than shop but suggestive for any department head's personal checkup—copy now free to you (no strings) if you'll ask on your letterhead.

No personal follow-up—I don't have time for unsolicited calls—but while making a procedure audit with the aid of this Management Checklist you yourself

would isolate sectors and come back, if at all, with specific procedures on which you *might* be able to use outside help.

Only then, after you had—

1. Made your own survey
2. Narrowed the field, and
3. Opened up on some problem

—could you and I have anything to talk about. So your getting a free copy of MCL puts neither of us under obligation, is only to help clear your mind.

20 Old Clients Ask in One Week

Week of July 9, 25 old clients wrote for this or that information. 20 of them asked for MCL with new management inventories in mind, against plans for what comes after X-day. You're just as welcome: write me today.

LYNN W. ELLIS

Management Counsel

Westport, Conn.

Departure Company in Bristol. Mr. Hyde also was vice-president and treasurer of Baush Machine Tool Company of Springfield, Mass., a position he retained until his retirement in 1922. He was also a director of the defunct City Bank and Trust Company of Hartford.

★ ★ ★

FRANK H. BLAKESLEE, for two years manager of the priorities department of the New Haven office of the War Production Board, has succeeded Edwin L. Howard as priorities manager of the Hartford office, according to District Manager Harold L. Bates. Mr. Howard held the Hartford post for three years and left July 1 to enter private business.

★ ★ ★



FREDRICK H. WATERHOUSE

(above) of Bristol, chief attorney of the Hartford-New Britain Defense Rental Area Office of the OPA, and practicing attorney in Hartford for the past twenty years, has just become counsel of The Manufacturers Association of Connecticut, effective July 1. He replaces Joseph B. Burns, who became attorney for the Fuller Brush Company early in July.

Mr. Waterhouse, a life-long resident of Bristol, is a graduate of Bristol High and Boston University Law School, receiving his law degree in June 1924. Passing the Connecticut Bar in the same year, shortly after graduation, he became an associate of the late Josiah H. Peck of Hartford in September 1924. During the sixteen years until Mr. Peck's death in 1940, he was continuously associated with him in the practice of criminal, civil and corporation law. Mr. Waterhouse also took a prominent part in



GOVERNOR BALDWIN addressing the War Progress Meeting, sponsored by the Connecticut War Council and Victory Manpower Committee and held in the Aetna Life Insurance Company auditorium, Hartford, June 12. Other speakers on the program: Major General Levin H. Campbell, Jr., Chief of Ordnance, U. S. Army (at left behind Governor Baldwin); Charles E. Wilson, executive vice-chairman, WPB (center) and Captain George L. Menocal, USN, Fleet Administrative Officer stationed at Boston Navy Yard (right).

the large volume of appellate work for which the Peck office was noted throughout the state. Since Mr. Peck's death in 1940 he has continued to practice law under his own name in the same office at 36 Pearl Street, Hartford.

In 1942, Mr. Waterhouse accepted the post of chief attorney of the Hartford-New Britain Defense Rental Area Office, which he has carried on in addition to his regular legal work. During the past two years he has gained a broad insight into the administrative procedures of government control law which should be beneficial to him in his new post.

★ ★ ★

THE NEW SLATE of officers recently elected by the Hartford Chapter of the National Association of Cost Accountants to serve during the 1944-45 season includes:

President, Frederick E. Burnham, United Aircraft Corporation, East Hartford; vice-president, Morris Klein, Veeder-Root Inc., Hartford; vice-president, Raymond Payne, Arrow-Hart & Hegeman Electric Company, Hartford; secretary, George E. McCarthy, New Britain Machine Company; treasurer, Einar W. Palm,

Springfield Ordnance District, Hartford office.

Directors, employment, John J. Wrinn, U. S. Rubber Company, Naugatuck; meetings, Walter O. Carlson, Bristol Brass Corporation, Bristol; member attendance, Harris W. Tucker, Comptometer Company, Hartford; membership, Philip J. Montle, International Business Machine Corporation, Waterbury; program, Arnold O. Wolf, Scovill Manufacturing Company, Waterbury; publications, Carl G. Baumes, R. Wallace & Sons Manufacturing Company, Wallingford; publicity, A. Stanley Harmon, Hadfield, Rothwell, Soule and Coates, Hartford.

★ ★ ★

MANUFACTURERS IN THIS STATE

are advised that the Office of Alien Property Custodian has already issued over 8,000 licenses to American manufacturers for use of vested alien patents. Many of the patent licenses are on devices which could be made applicable to uses by plants in this state, such as the license issued on patent 2269549 which is a machine for shaping metal plates by drawing or pressing over a die, effective in forming structural parts

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Complete catalogues listing all vested alien patents and pending applications may be purchased from the custodian's office, which has a branch at 17 Court St., Boston, or may be examined at the district offices of the Smaller War Plants Corporation in Bridgeport, New Haven and Hartford. A complete file containing copies of all vested patents and pending applications is located at the Boston office where any item may be examined and where assistance will be given in selecting suitable patents and in making application for license.

★ ★ ★

FOLLOWING HIS RE-ELECTION

as vice-president and director on May 16th, 1944, Harold J. Ritter resigned on that date from the Norma-Hoffmann Bearings Corporation, Stamford, Conn., one of America's prominent manufacturers of precision ball, roller and thrust bearings. His resignation became effective June 30, 1944.

Mr. Ritter has been associated with the Norma-Hoffmann Bearings Corporation for 28 years, beginning his career there as secretary to the founder of the company, the late W. M. Nones. He has occupied various capacities with the company during that time, having been made assistant secretary in 1928, then secretary in 1936 and finally vice-president in 1939. Mr. Ritter has been a director of the company since 1936 and has also occupied the post of sales manager since 1932.



HAROLD J. RITTER

AMONG APPROXIMATELY 2000 company publications displayed at Cleveland during the National Council of Industrial Editors Association convention, The Stanley World, employee publication of the Stanley Works, New Britain, was awarded Honorable Mention.

The nearly 2000 publications were broken down into various classes for judging purposes. The Stanley World was placed in a class of "up to 30 pages, printed in black and white." This class it was reported included a bit less than 1000 magazines. A first, second, third prize and Honorable Mention were awarded in the class.

The World started its career in 1917 as a paper for the boys in World War I. Since that time of a single mimeographed sheet and later a 4 page printed sheet, the "World" has become one of the largest employee publications in the east. It is published monthly and distributed to all employees, 1100 men and women in the armed forces, directors and pensioners. It averages 24 to 32 pages.

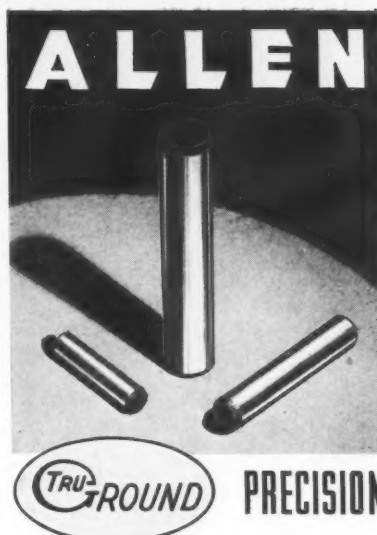
With Ken Tuttle as editor, there are 12 associate editors representing the company's various plants. Each plant has reporters representing various departments.

★ ★ ★

EUGENE E. WILSON, vice-chairman of United Aircraft Corporation, East Hartford, in an address at a meeting of the New England Council in Boston recently, praised the role New England manufacturing is playing in support of the aircraft industry during the present war. He recalled an address he made four years previously before the council when he told of a "singular unawareness in New England of the opportunities which the aircraft industry offered to the region." He said today, however, New England industry in general realizes these possibilities and has participated in increasing numbers in supplying aircraft material.

★ ★ ★

NEW EMPLOYEES starting in the Chance Vought Aircraft Training Center in Bridgeport are receiving an increased starting rate of 60 cents an hour and also the same monthly rate increases granted to regular Chance plant workers. The increased training rate is the result of a recent approval by the Regional War Labor Board of a request by the Chance



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Vought division and other divisions of United Aircraft for equalization of rates in their training school with those in effect for their regular production workers.

★ ★ ★

FUNERAL SERVICES were held recently for William L. Belknap, Sr., prominent Bridgeport manufacturer, who died in his 80th year, after a long illness. Born in Bridgeport, Mr. Belknap became identified with the Belknap Manufacturing Company, founded by his father in 1863 for the manufacture of brass goods and valves. There his mechanical knowledge was largely responsible for the growth and success of the company. He was chairman of the board of directors at the time of his death.

★ ★ ★

G. K. WILLIS of High Standard Manufacturing Company, New Haven, has been appointed to the plant management conference committee of the National Metal Trades Association. The conference, tentatively slated to be held late this summer, will be concerned with the problem of management functions of shop executives.

★ ★ ★

S. P. MORGAN has assumed his new duties with the P. & F. Corbin division of the American Hardware Corporation, New Britain, as factory manager, filling a vacancy left by the death of Frederick Hausman. Mr. Morgan has been with the plant since 1919.

IN AN EFFORT to cooperate with the War Production Board's drive to save paper and to provide a margin of safety on our already limited allotment of paper for a possible future emergency (special issue use), your Association decided to combine the August and September issues of its regular monthly publication, **CONNECTICUT INDUSTRY**, publishing the combined issue on September 1. The publication date for future issues will be the first day of the month instead of the 15th unless further unforeseen circumstances make another date more expedient.

Because of the ever-increasing manpower difficulties faced by all printers (classified as non-essential by WPB), especially during the past year, the distribution of the magazine has been delayed beyond our former publication date as much as seven to nine days on several occasions. In an effort to avoid such delays in the future, the *copy due date* for both *advertising* and *editorial copy* has been pushed back to the *twenty-fifth of the second month* previous to the *month of issue*.

W. F. BERNART JR., executive assistant to W. H. Wheeler Jr., president of Pitney-Bowes Postage Meter Company, Stamford, has been elected executive vice-president.

★ ★ ★

DR. CHARLES C. SMITH of Chicago, a representative of the National Association of Manufacturers, in New London recently, told a meeting of 1,000 persons that "99.44 percent of all good labor relations are just plain human relations."

Speaking under auspices of the emergency war manpower committee for the New London area, Dr. Smith said that persons "in supervisory capacities have got to know not only the guy in overalls but the guy under the overalls" as he emphasized the importance of the "human side" of the over-all production picture.

The meeting was called for executives, supervisors and key men in industries and business to stress the importance of getting increased production from workers already employed. The meeting was a contribution of the emergency committee in its effort to halt the War Manpower Commission threat of a No. 1 critical rating for the city and 10 surrounding towns.

★ ★ ★

CONNECTICUT BANKERS are studying plans for the formation of a credit pool and other steps to meet the expected demands of industry for loans in the postwar period. The study

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was undertaken as the result of a meeting of the Connecticut Bankers Association in New Haven recently when the organization went on record in favor of such a program.

One of the aims of the program will be to make money available in the state so that manufacturers and others will not have to depend on federal assistance and guarantees. The bankers acknowledged that many demands for this type of credit may be of a risk nature which will not accommodate themselves to the conventional and traditional type of bank lending.

★ ★ ★

A PROGRAM of postwar industrial economy with its chief aim the formation of strong labor-management-government committees was launched recently at a meeting of the Industrial Methods Society in Bridgeport. More than 200 members of the operational staffs of 53 leading industrial establishments in the Bridgeport area were guests at the meeting. The proposed labor-management-government committees would work in Bridgeport with experts furnished by the society to scientifically plan harmonious activities which could be used by other communities with local chapters of the Industrial Methods Society.

★ ★ ★

THE WAR PRODUCTION BOARD has released a list of hundreds of essential civilian products which manufacturers will be authorized to produce first as restrictions on materials are lifted.

On the list of goods of which there is an "acute shortage" are such products as mechanical refrigerators, sewing machines, vacuum cleaners, electric ranges, hairpins and bobby pins.

On the "serious shortage" list are bicycles, ice refrigerators, baby cribs, play pens and alarm clocks, among other things. Among the items needed but "in better supply" are appliances and extension cords, incandescent lamps, hearing aid batteries, kitchen sinks and vacuum bottles.

Requests to produce civilian goods will be checked against the lists to assure production of the items most needed. Many of the products are already in limited production.

★ ★ ★

VETERAN EMPLOYEES of the Remington Arms Company, Bridgeport, recently formed a 25-Year Club.

Among those who launched the project were President C. K. Davis, W. T. Ashcroft and Board Chairman M. Hartley Dodge, in addition to Club President Thomas Hungerford and Club Vice-president Donald F. Carpenter.

★ ★ ★

EDITH BALFOUR DUNN, formerly with McCall Corporation, has joined the staff of The United States Time Corporation in charge of publicity and public relations. She will be located at the new sales headquarters, 630 Fifth Avenue, International Building, Rockefeller Center.

Miss Dunn was associated with the Pattern Division of McCall Corporation for eight years in charge of department store and school teen-age promotions. She has been active in developing television experiments and in planning direct mail campaigns and fashion shows presented both in retail stores and in schools and colleges throughout the country.

★ ★ ★

THE FIRST HELICOPTER production line in the world has commenced operation at the Sikorsky Aircraft division of United Aircraft Corporation, Bridgeport.

B. L. Whelan, general manager of Sikorsky Aircraft, recently announced that the company had completed delivery to the Army Air Forces of 30 service test models of the YR-4 helicopters and was already turning off

this new assembly line production models in quantity of the same craft to be known as R4-Bs.

Meanwhile, Mr. Whelan said, experimental models of two improved versions of the Sikorsky helicopter—the XR-5 shown below and the XR-6—have been built for the U. S. Army Air Forces.

The YR-4 helicopters, developed by Sikorsky Aircraft under contract with the Materiel Command of the Army Air Forces, are already in service. The first report of helicopters in action in the war came a few weeks ago and told of their use by the Army Air Forces in the invasion of Burma. There, it was reported, they evacuated wounded from points inaccessible by other means of transportation. One of the helicopters is also in Alaska undergoing cold-weather tests and held in readiness for possible rescue work.

The Army is also using the YR-4s for training pilots and has allocated several of the craft to the Navy, the Coast Guard and the British Royal Navy, for training purposes and for study as to how they may be adapted for their use.

★ ★ ★

AFTER 53 YEARS' SERVICE with the Winchester Repeating Arms Company, Division of Western Cartridge Company, H. F. Beebe, Manager of the Foreign Sales Department, is retiring.

Mr. Beebe's more than half a century



THE SIKORSKY XR-5 HELICOPTER hovers a few feet above the ground. This two-place passenger, tandem-seated aircraft is to be built in quantity for the Materiel Command of the U. S. Army Air Forces at the Bridgeport, Conn., plant of Sikorsky Aircraft division of United Aircraft Corporation. The XR-5 is powered with a Pratt & Whitney 450-horsepower Wasp, Jr., engine and thus is an entirely United Aircraft product.

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of service to Winchester has made him a host of friends throughout the world. His experience embraces a period which saw the company advance to the position of one of the leading arms and ammunition concerns in the country, and in which development he played an important part.

He joined Winchester shortly after graduating from high school in 1891, and became connected with the Export Department in 1910, assuming charge in 1915. He at once embarked on a series of extensive world-wide trips for the company and for years has been well-posted on foreign trade conditions in the field.

Mr. Beebe has been a member of the Foreign Trade Committee of the Association since the Committee's organization in 1919 and served as chairman of the Committee for ten years. Later he conducted a course in "Practical Exporting" for the benefit of Connecticut manufacturers interested in foreign trade, and in recognition of his outstanding contributions to the promotion of international trade, he has been appointed "Honorary Life Member" of the Committee.

Two years ago Mr. Beebe underwent a serious surgical operation which impaired his health. While he has recov-



H. F. BEEBE

O. E. NELSON

ered, his illness influenced his decision to retire at this time.

Mr. Beebe has been prominent in many outside activities in addition to his Winchester duties. He is past president of the New Haven Credit Men's Association and the Lions Club. He was one of the organizers 30 years ago, and is treasurer of the Employees Tuberculosis Relief Association. He has been a member of the New Haven Board of Education for the past ten years. He is a member of the Board of Management of the New Haven Building and Loan Association and was one of the organizers of the Foreign Interchange Credit Bureau of New York. He was treasurer of the Governor's

Foot Guard for many years, and is now on the retired staff.

Mr. Robert Wier, Jr., Sales Manager of Western Cartridge Company, has announced that Mr. Beebe will be succeeded as Manager of the Foreign Sales Department by Mr. Oliver E. Nelson.

Mr. Nelson has been with Winchester since 1917, and has had wide sales and promotional experience gathered from extensive travels that have taken him practically over the globe.

In 1942 he was lent to the Government as a special representative of the R.F.C., assigned to the Rubber Development Corporation. His duties placed him in charge of the rubber program of Venezuela, Trinidad and the British Dutch and French Guiana.

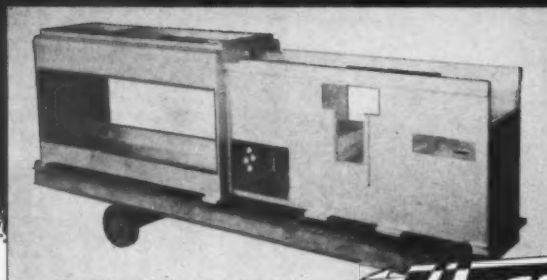
Mr. Nelson was born in Rock Island, Illinois, March 14, 1891. He was graduated from Colgate in 1911 and immediately entered newspaper work. In 1913 he was sent to the Far East as a special representative of Cable News American.

After joining Winchester's sales staff in 1917 he spent the next few years in Brazil, Peru and Bolivia. In 1922 his travels broadened, and successive trips carried him numerous times around the world, and in particular in Far Eastern, Middle East and African markets.

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DESTINATION: HARMONY

(Continued from page 7)

a fog of confusion, a confusion both of purpose and plan. Someone in Mahogany Row, for instance, might have said, "Let's have a paper. It'll be an employees' paper. It'll use a lot of names. People like to see their names." For him, the establishment of a paper was as simple as that.

Someone was selected to edit the paper—someone from the plant, in most cases, who didn't have too much else to do and may have done a little writing in school. Then a printer was called in, and the paper started. Employees learned about it when they received the first issue, although they knew something was in the wind when a correspondent came around to ask what was news in their part of the plant.

Usually, the columns were filled with personals, editorials about security, presidential messages, success stories, outings and humor. Obviously, this type of periodical did no harm. Management didn't mind paying for it when times were good, and employees didn't mind getting it—especially when it was free. Had the era of the 1920's gone on forever, as many people thought it would, this kind of employee publication would have tagged along, too.

But that era exploded with reverberations that shook walls and smashed glass in the home of many a working man. Men and women were laid off in droves. The depression that followed is still painfully remembered.

The physical shock of being laid off during those early years in the Thirties would have been bad enough, but there was a psychological shock to boot. A man out of work has lots of time for thinking. He had thought himself secure in his job. He had bought little luxuries. He had invested in a home and a car. He had begun to think of his management as all-knowing, all-seeing, all-wise, and his employee magazine had rather supported that fiction. Now he was saying to himself, "My management sure let me down." Rightly or wrongly, he felt himself personally victimized by his former employer.

When he found a job again, and an employee publication was thrust in his hand he looked at it with jaundiced eye. When he saw that it hadn't changed much, that it contained noth-

ing of real help to him, he tossed it aside. Too much of that feeling still persists today, despite ample evidence that management has, at least to some extent, changed its thinking and despite the fact that employee publications have advanced through professional editorship and the compulsions of war.

The foundations and supports for the bridge which the employee publication can become have not been erected, and until they are employer and employee remain miles apart. As representatives of management and as journalistic engineers, the editors have that job.

Some editors are close to top-flight leaders and to policy-making bodies. Editors should ask themselves what kinds of printed material will bring the company closer to its destination of harmony and begin planning that material carefully. When plans have been completed they should be presented to the leaders with all the persuasiveness possible. The groundwork should be well laid, and preparation should be made for a rejection of at least a part of what is desired. But advancement should be as rapid and as consistent as management approval permits.

Others, perhaps, are farther removed from management. Here the road is a little tougher; the campaign must be mapped out with special care. The editor in this situation should absorb all he can about industrial relations in current media and prepare a blueprint, so to speak, of how his publication can accomplish what every employer and every employee desires: an opportunity to work together in friendliness and mutual confidence. If such an editor knows his company, understands its policies and their origin, and has resourcefulness and courage, he will ultimately get a sound plan to the right man.

Each management, of course, differs in its fundamental concept of how to reach the individual worker. One may be convinced that it should offer its people more facts about the business, and if the editor works for such a management his ideas will be welcomed and considered. Another may want to get better acquainted with its employees but be fearful of consequences. So long as it is open to conviction the editor has a chance. A third, however, may be conducting business in the mode and mood of the Twenties, still desperately clutching to the philosophy of "Tell 'em nothin'." There is where

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an editor's powers of salesmanship will have greatest opportunity for expression. There is where he will need to bring up all the heavy artillery he can muster—some of the business articles in Reader's Digest have been helpful, as well as excerpts from speeches of Henry J. Kaiser and Eric Johnston, studies of the National Industrial Conference Board and Metropolitan Life's Policyholders Service Bureau, current articles in business and trade papers, statements and policies of other industrial concerns, and changing trends in the contents of many internal publications.

Right here in the state of Connecticut is an organization and a leader which together are accomplishing wonders in reaching the desired destination. I refer to the Bridgeport Brass Company and its president and general manager, Herman W. Steinkraus. In an article in *Forbes* just a year ago Mr. Steinkraus gave definition to his company's philosophy.

"Given the true facts of a situation," said Mr. Steinkraus, "and the plain, everyday working man will treat them honestly, and try to cooperate if given a reasonable chance." "But," Mr. Steinkraus adds, "the working man wants all the facts."

The Bridgeport Brass president made three other points that seem pertinent to this discussion:

1. We do not play checkers between labor and management;
2. We feel the responsibility to keep our people informed, and explain to them in advance, or at least as promptly as possible, any action taken or to be taken that may have a bearing on their relations with the company;
3. Let us hope that the experience of American industry and labor in working together for victory in war will result in our also working together for victory in peace.

For purposes of thoughtful study and application I suggest a seven-point program of planned contents for employee publications with Destination: Harmony!

1. *Articles on the meaning of government, capital, management and labor*—how each functions—what each accomplishes—how all are inter-related.

2. *Presentations which link the industrial employee to this four-way relationship.* The worker will find his answer here to "What does all this have to do with me?" Give him full information about working hours, dividends, governmental decisions affecting the business, the employment outlook for the future and his company's postwar plans.

3. *Up-to-the-minute information on labor relations.* In this category are such subjects as the company's personnel and operating policies, developments in labor-management committees, and results obtained in bargaining conferences.

4. *Discussions and simple illustrations of the company's wage structure.* Grasping the basic economics on which his industry rests, and seeing himself as an integral part of it, the reader can understand better how wages are measured.

5. *Stories and pictures of working conditions,* subject, of course, to wartime restrictions. Industrial health plans, supervisory training, first aid instruction, safety appliances, parking spaces, light, ventilation, and other employee aids offer constructive subject matter.

6. *Articles and pictures on associations with fellow workers.* There may be game rooms, cafeterias, sporting events, picnics and other recreational inducements. This is particularly informative material for the men and women who have two years or less of service.

7. *Information on additional helps*

to the employee, such as sickness and pension benefits, stock or wartime purchase plans, savings or insurance programs. Descriptions of these rivet loyalty and help to convince employees' families that the company is genuinely interested in the welfare of their breadwinners.

The average employee is most interested in the subjects that concern his work and his future. He believes he has a stake in the company he serves. He wants to feel that he is participating in its advancement. He thinks he has a right to know what is going on, and in return for that information he offers allegiance and devotion to its progress.

Not only does he want the simple truth in his publication, but he wants to know the Why. A story which simply carries the announcement of a new policy and a brief description of that policy is incomplete, to say the least. It should include the reason for the policy and some of the sincere thinking that has gone into it. Otherwise, it does not take the reader into its confidence.

In setting out on his course, the industrial editor should not expect astonishing results in a month. If there is reader skepticism to rout out and there usually is, the process will take time. The employee will not be convinced by one issue that the company controlling and subsidizing the publication is going to give him facts without fancies, the whole truth rather than fragments, complete information without ulterior motive. Month by month the employee's belief must be fostered and strengthened. By the end of a year, results will begin to show.

The important thing is to start and to start now, while there is yet time to build a strong and durable bridge; while there is yet time to make secure the lessons of cooperation the war has taught us. The employee publication editor has the opportunity at hand to make a significant contribution to the industrial world in which you live and to the neighborhood around the globe.

Photographs in this issue requiring credit were gathered from the following sources: Cover, pages 4, 5 and 6, Conn. Park and Forest Commission; page 12 (four men) Bachrach; page 15, P & W Aircraft, Div. of United Aircraft; page 16, Pratt & Whitney, Div. of Niles-Bement-Pond; page 17, Bullard Company; pages 18 and 19, (Chromium Process and E. Ingraham) James Pickands, II, New Haven; page 23, John J. Cheplick; page 29, (Waterhouse) John Haley, Hartford; page 35, Sikorsky Aircraft, Div. of United Aircraft.

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MATERIALS HANDLING EQUIPMENT

**CLEVELAND TRAMRAIL - CRANES
ELECTRIC AND CHAIN HOISTS**

MORE "E" FLAGS FLY

(Continued from page 19)

Waterbury's eleventh recipient of the Army-Navy "E" award for outstanding production of war materials. Lt. Col. T. L. Hapgood, executive officer, Springfield Ordnance District, presented the flag which was accepted by Fred Lux, vice-president of the Lux Company.

In receiving the award, Mr. Lux related that the company began manufacture of bomb fuse components before Pearl Harbor and is now considered the "first source" for standard fuses for large bombs.

Called upon by the Army to produce bomb gearings of unorthodox design, he said Lux engineers developed new methods of manufacture to smash a bottleneck on vital gearing parts.

He paid tribute to his father, Paul Lux, president of the firm, who founded the clock company 25 years ago.

Mayor John S. Monagan told the audience of 400 that "fateful days lie ahead" and that the Japs and Nazis will fight bitterly as the Allies approach their homelands. He urged the workers to continue high production levels until the war is won. Other speakers were Lt. Comdr. Raymond T. Fish, representing the Navy, and Herman F. Lux, secretary of the Company.

Representatives of employees who received "E" pins at the ceremonies were: James O'Loughlin, Mary Crary, Bridget Galvin, Henry Keller, John DeMasi and John Maher.

★ ★ ★

AT THE ARMY-NAVY "E" ceremonies recently held at The E. Ingraham Company, Bristol, Conn., Admiral E. C. Kalbfus (retired) paid tribute to the company's production record. He pointed out that Ingraham has produced from five to seven times the number of units per day called for in the original contract. As a result of superior workmanship, the Ingraham Company is now producing, in one particular category, all the units required for the entire Navy.

Ingraham's achievement is but one example of the way American industry



VIRGINIA RUBATEX DIVISION

GREAT AMERICAN INDUSTRIES, INC.
GENERAL OFFICES, MERIDEN, CONNECTICUT

The Virginia Rubatex Division of Great American Industries, Inc., is located in Bedford, Virginia. It has pioneered in the development of many new uses for cellular rubber.

Its production facilities are now entirely devoted to government orders. Its products include: lightweight filler for pontoons used by the U.S. Engineers in bridge building; parts for airplane de-icers; floater life nets for the Navy; and buoyant lining material for jackets used by the men in the Maritime Service.

The cellular material manufactured by the division is widely used in the aircraft industries as self-sealing fuel "supports" and as filler to minimize possible damage to these units under combat conditions. These products have numerous interesting applications in the postwar economy, including life-saving equipment and low-temperature insulation.

This advertisement is published by Great American Industries, Inc., 70 Britannia St., Meriden, Conn. to acquaint Connecticut people with the company's out-of-state divisions.



is helping to win the war by converting peacetime methods, tools and machines to meet the tremendous demands of war production.

What Admiral Kalbfus said of Ingraham might well be said for all other manufacturers who now fly the Army-Navy "E" flag:

"The same pride in your work, the same attention to duty, the same national mindedness, and the same grit and determination that have brought you today's award will enable you to meet the country's problems of tomorrow. I feel that the future may safely be left in hands such as yours."

★ ★ ★

AUTOMATIC SIGNAL CORPORATION, East Norwalk, was awarded the Army-Navy "E" for outstanding achievement in production of war material, at a ceremony held at the company's plant on July 7.

From its normal peace-time production of traffic-actuated signal control equipment, the Company has converted to a full war production basis

and during the past three years has manufactured a variety of electrical communication and signalling equipment for the Army, Navy, Marine Corps, and the Merchant Marine.

Colonel L. R. Breen, acting for Governor Raymond E. Baldwin, who was unable to be present because of the tragic circus disaster at Hartford the day before, made the address of welcome to the gathering of Army and Navy officers, distinguished guests, and employees of the Company.

The presentation of the "E" pennant was made by Colonel Eugene V. Elder, Commanding Officer, Signal Corps Procurement District, Philadelphia. In accepting the pennant for the Company, President Raymond I. Basanta said, in part, "The award which is bestowed on us today, does not belong to any one of us any more than to another. The Army-Navy "E" is the greatest wartime honor that can come to the men and women of any company. It is the Army and Navy's way of saying, 'Well Done'. It is the war worker's equivalent of a medal pinned to the breast of a soldier on

the field of battle. . . . As we raise this pennant to our flagstaff, Colonel Elder, there comes to each and every one of us of Automatic Signal Corporation, a solemn realization that our task is still uncompleted. We pledge our unceasing efforts to keep this "E" pennant flying in honor until we shall have won the final victory."

Lieutenant Commander William B. Shope, U.S.N.R., Bridgeport Field Officer for Procurement and Material made the Navy citation and presented token "E" lapel pins to five representative employees of the plant. He was assisted by Pfc. Fred Pote, veteran of the Tunisian campaign and holder of the Purple Heart won at the battle of Maknassy, where he lost a leg by German machine gun fire.

Mrs. James M. Kelley, mother of a boy in the armed forces, responded to the citation and award. Speaking for the employees, she said, "We know that only by giving our best each and every day can we be sure of shortening the war and bringing closer the victory that we have been fighting for. I know that I speak for all of us in promising that the men and women workers of Automatic Signal Corporation will continue to be worthy of the trust placed in them."

Among those on the platform were Congressman-at-Large B. J. Monkiewicz, Mayor Robert B. Oliver, War Manpower Commissioner for Southern Connecticut LeRoy D. Downs, Professor Irving Fisher, chairman of the board of directors, officers of the Company, and representatives of the armed services. Also present on the platform was Mrs. Ella Merritt, widow of Pfc. Robert Merritt, a former employee, who gave his life at the Anzio beachhead. Mrs. Joseph N. Paul, wife of a company executive, sang "America" and the "Star Spangled Banner."

★ ★ ★

ADDITIONAL "E" AWARDS have been received by the following Connecticut industrial plants: Cheney Brothers, Manchester, third award; Pratt & Whitney, Division of Niles-Bement-Pond Company, West Hartford, fourth award; Raybestos Division of Raybestos-Manhattan, Bridgeport, second award; American Brass Company, Ansonia, Waterbury and Torrington plants, fourth award and The Bullard Company, Bridgeport, fourth award.

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HARTFORD AUTOMOBILE INDUSTRY

(Continued from page 11)

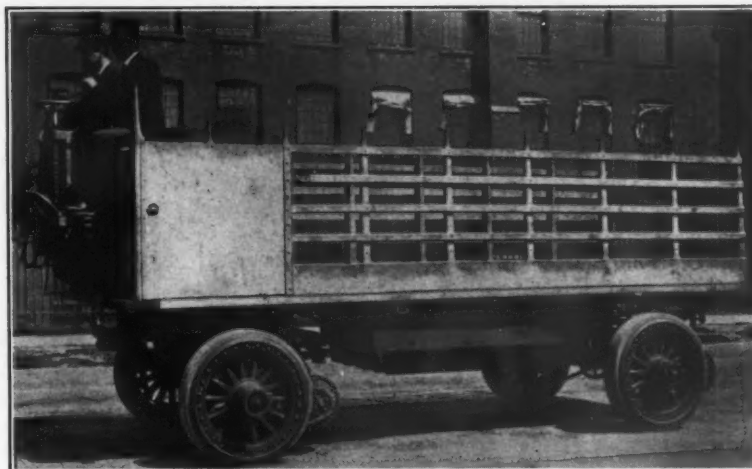
vate enterprise, and sold to the Electric Vehicle Company its first gasoline car model, thus establishing the Columbia line of gas cars. He had the foresight to build on the most highly developed European plan, but with many "Yankee" improvements, when most American designers were hiding the engine under the body. He is now Chief Inspector at Hamilton Propeller.

John J. Roche, who was responsible for the finish "equal to Brewster's" of the Columbia cars, at a time when American sales were made largely on "finish" as against European "car performance." In those days, 30 or 40 coats were necessary to produce a finished job.

Henry W. Nuckols was also prominent at a later date in a financial and managerial capacity.

Eddie "Cannon" Bald (Edward C. Bald) came into the picture at the time when racing performance was necessary as a sales asset. Eddie, having been a crack bicycle racer of international fame, joined the Electric Vehicle Company to establish the racing team of Columbia cars, which he accomplished to distinct advantage.

I well remember the two Selden boys, Henry and George, (sons of the inventor) together with Eddie as driver, going out to a straight smooth spot on the Newington Road, in front of what is now the Veterans Hospi-



HARTFORD-MADE ELECTRIC TRUCK—THE FIRST FIVE TON TRUCK IN AMERICA

tal. We had a medicinal tank, about five cubic feet, of pure oxygen and, after timing a control run, attached the tank to the air intake with a small hose in the hopes that we had discovered a way of "souping up" the speed. At the end of the run which was, if anything, slower, the rubber hose was a flat ribbon sucked thus by the engine. It was probably lucky for Eddie that no bigger oxygen tanks were obtainable at that time, as disastrous results have since been known from this experiment.

William J. McAneeny, who came to the Electric Vehicle Company by way of the Riker Electric Vehicle Company, achieved such managerial

prominence as to finally attain the presidency of the Hudson Motor Car Company, as well as the Hupp Company.

The Pope Manufacturing (bicycle) Company later developed its own line of gasoline cars, first putting out a conventional "one-lunger" but later developing a car of wonderful performance for which Lindley D. Hubbell, afterwards Colonel Hubbell, commandant in charge of the Springfield United States Armory and later production head of the Indian Motorcycle Company, was largely responsible. This model was continued successfully for many years under the name of Pope-Hartford and ultimately

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resulted in a speed car which was raced by Bert Dingley, now President of the Marmon-Herrington Company, Inc., at Indianapolis. This car was entered in a Vanderbilt Cup Race and, in Europe, participated in numerous spectacular races in competition with the crack foreign cars and drivers of the time.

Justus B. Ertz developed and built an electric transmission car at the Columbia plant. This afterwards became the Owen Magnetic Car, whose transmission was never equalled until the advent of the hydraulic drive.

Hartford was indeed the "Incubator of The Automobile Industry," as attested by this typical magazine article, which appeared in the *Automotor Journal* on October 24, 1903:

"Last week we noted a record performance by two employees of the Electric Vehicle Company, Hartford, U. S. A., in driving from Chicago to New York, a distance of 1,177 miles, on a 24-h. p. Columbia petrol car, in 76 hours. It appears that this was accomplished by two men driving in stages over the distance, the first man driving from Chicago to Cleveland, 350 miles, the second chauffeur taking charge at this point, the first man then taking train to Corning, the next stage, getting sleep on the train, ready to take over the car for the third stage. By this means the full distance was covered in the time named. The average speed throughout was 15½ miles an hour, a truly marvelous performance considering the roads which had to be negotiated and the difficulties to be overcome."



OVER THE DESK AND ON THE ROAD

C. L. EYANSON
Executive Director

General Mark Clark, through his performance, has proved that he is no Nero.

★ ★ ★

Henry Beers, vice-president of the Aetna Insurance company and a member of the advisory council of the state unemployment insurance commission, appeared before the George committee on the unemployment compensation sections of the post-war proposal. As usual he did a fine job.

★ ★ ★

During the month of June the staff of the Association made nine different sorties to Washington on subjects having to do with the War Labor Board, including automatic progression and contract termination, the Bureau of Budget questionnaires, unemployment compensation, etc., etc.

During the same month 32 paratroopers from the Federal government departments landed in Connecticut.

★ ★ ★

Tom Marshall was famous for a good many things other than his statement that "what this country needs is a good five-cent cigar". If Mr. Wilson had given up the presidency when he should have given it up, the course of the country's history would have unquestionably been changed for the better. Mr. Marshall was respected and admired and beloved by all who knew him. He was a story-teller supreme. I went to see him one time in the Vice-President's Chamber at Washington. He asked about Columbia City folks and apropos of his remark that he was getting a bit up in years, he told a story concerning a home town character.

Uncle Jake came into the Governor's law office one warm summer day and said that he hadn't had a glass of beer for forty years. He walked into Anthony's saloon, ordered a glass of beer, and was about to put it up to his mouth when he saw himself in the mirror. He immediately put it down and said, "Jake, you damn old fool", and walked right out without taking a sip. Governor Marshall asked Jake how old he was. "I'll be ninety-seven years old in September and I have got to die pretty soon, gosh darn it."

Which reminds us that our old friend, Fess Gates, is the Republican nominee for the Governorship of Indiana. If he makes the grade, and we hope he does, he will be the second man in a period of 36 years from Columbia City to sit in the Governor's chair. If you happen to be passing through the old home town on election day, cast your vote for Gates.

★ ★ ★

To date 60,000,000 Americans have bought defense and war bonds. According to the news releases of the treasury department, officials seem to feel pretty good about it, but we wonder what happened to the other 70,000,000 Americans.

Factory Buildings

Plans and Specifications for Industrial
Construction

Immediate and Post-War

LEO F. CAPRONI
Architect & Engineer

NEW HAVEN • CONNECTICUT

We have made a good many so-called speeches in our life and during our student days acted in practically every opera (a "super" in dirty costume, carrying a spear or leading a horse at \$1.50 per night). Sometimes we have even thought that we made a good speech, but the other night when we stood before the footlights in a local theater for three minutes attempting to tell our neighbors why they ought to buy bonds in the Fifth War Loan Drive our knees shook, our head wobbled, and our words wouldn't come. It was lousy.

★ ★ ★

We aren't as worried as most about juvenile delinquency. A little "talking-to" is quite as effective as the meetings and suggestions of the dogooders. When we were boys in Indiana it wasn't a crime to tip over Pete Greusback's backhouse, to go in swimming without a bathing suit, or to break a few windows—it was ornery but it wasn't criminal and quickly cured by a good talking-to or the birch switch.

★ ★ ★

Falstaff says that a whale is nothing more than a sardine with a thyroid condition.

★ ★ ★

Before the invasion General Eisenhower spoke over short wave to the people of the French under-ground. He advised them that he would speak again when the occasion came for them to rise against their aggressors. He asked them to identify his voice. When we read of that broadcast we thought how easy it would be for the Germans to select someone who could imitate the General.

Last night General Eisenhower spoke from a motion picture screen and we swore that Everett Stevens, president of the International Silver Company, has the same inflections, the same enunciation, uses the same clipped sentences, and, strange as it may seem, the same accent although, as we know, the General comes from Kansas and Mr. Stevens is doing his war job effectively down in Meriden, Connecticut.

★ ★ ★

The other day we recommended a man for an important position with

one of our members. He hadn't done exactly the type of work which he would be required to do in that position, but we knew he had the stuff in him.

Until the African campaign, Eisenhower never even led a squad of soldiers into battle, but today he is heading up the biggest battle job in history. He is there because someone thought he had the stuff in him.

★ ★ ★

Under the personal income tax law no individual can make more than \$27,300 per year, regardless of his salary for the government takes all over that amount.

Mrs. Roosevelt was the first person to recommend the limitation of salaries to \$25,000. She did so in a public speech. The President later took it up publicly. Remember? Somehow we wouldn't want to be in the position of Congressional leaders who let that \$2300 slip by!

★ ★ ★

There is one man in this world whom we do not believe will ever turn up feet of clay to us. He is Winston Churchill. We had the good fortune to hear him speak, but remember only two words of that speech and carried those two words with us through the last war and always.

We were in the Royal Air Force, stationed at a place called Romsey not so far from Liverpool. Mr. Churchill came to the field to give us a pep talk. The general theme of his speech was that the going would be tough but above all "don't grouse." Most of us did a good deal of beefing for the remainder of the war, but we never really grouched.

★ ★ ★

The "don't grouse" thought leads us to the observation that many of the news stories coming out of the present war speak of the constant gripes of American troops. The fact is always added that there is something wrong with a soldier or an army which doesn't gripe. We think that the same thing can be said of American civilians. We have a constitutional right to gripe, and an unhealthy condition would result if we didn't.

[43]

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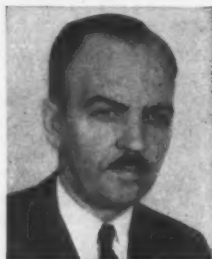
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INDUSTRIAL DEVELOPMENT

By L. M. BINGHAM,
Editor and Director of Development

IF you have ever had more than one job in your life, you will recognize from experience how important it is to make the new worker feel "at home". Because of the diversity of likes and dislikes of individuals, it is no easy problem to accomplish this result. Without wasting any of your time handing out my own views, some of which I have mentioned in previous columns, I point to the new report "Orienting the New Worker" prepared by the Policyholders Service Bureau of the Metropolitan Life Insurance Company which breaks down the whole problem into its many parts in a most intelligent manner. Any business executive writing on his own stationery to the Policyholders Service Bureau, Metropolitan Life Insurance Company, 1 Madison Avenue, New York 10, N. Y. can secure a copy for the asking.

★ ★ ★

ALTHOUGH VISUAL EDUCATION had a fair start prior to the war there is little doubt but what the terrific impetus given to its use for rapid education of specialists in the Armed Forces will carry over into the postwar period to speed up education in all fields at a more rapid pace than ever before. Right now the Armed Forces are using visual aid not only to educate soldiers, sailors, marines, WAVES, WAVES, SPARS, etc. in rapid-fire assimilation of facts peculiar to their own line of endeavors, but also are using it effectively to educate employees in war plants and the public in the nature and demands of total warfare. Although these films have been used widely in industry it is the feeling of public relation representatives, particularly in the Army and Navy, that they have not been used to anywhere near the extent they should be. These films may be secured for the nominal rental charge of \$1.00 for 3 reels or less in any one shipment, plus postage,

if companies have the equipment and the operator. If an operator is required as well as equipment, expenses may run up to \$17.00 for an hour and one half showing; or \$25.00 for 4 hours showing of films. Some 35 or more Army Incentive films may be secured by writing The Industrial Service Division, Public Relations Branch, HQ, First Service Command, Boston, Massachusetts, or the Army's authorized film distributor in Connecticut, The Hebert Studios, Inc., 53 Allyn Street, Hartford, Connecticut. The latter studio also has Navy films as well. You are missing a real bet to build morale if you are not showing some of these films regularly to your employees, especially those dealing with your industry or the recent combat films.

Another idea which is gaining headway for the development of community morale is the setting up of a screen in the town park, ball field or other convenient area where showing of incentive films are on a community wide basis. While the cost of setting up an outdoor screen may be prohibitive for one small plant, the plan is feasible if a number of manufacturers and business organizations in a single community agree to share the expense for these community showings. Such a program is now being conducted in Waterbury. One community is planning to hold two showings weekly to run about an hour and one half in addition to music to be provided by either the high school or industrial band. An industrial recruitment film short (like the one in which Governor Baldwin was the principal character) may also be run in areas where it is desirable to promote further manpower recruitment. The variety of the show makes it most effective in reaching a section of the population that might otherwise be removed from normal recruitment appeals. Help in organizing a community program is

available by writing direct to the Industrial services Division, Public Relations Branch, HQ First Service Command, Boston, Massachusetts, or The Hebert Studios, Hartford, Connecticut.

★ ★ ★

FEW PEOPLE question the importance of selling and distribution in the postwar era. One way of promoting thinking along this line is to secure either the loan of, or purchase at \$6.50, the film entitled "America's Secret Weapon", the new sound-slide film produced jointly by the Advertising Federation of America and the Committee for Economic Development. The film dramatizes the role which advertising and selling must play if we are to attain and maintain high levels of employment in the postwar period. If interested in this film write to the Committee for Economic Development, 285 Madison Avenue, New York 17, N. Y.

★ ★ ★

THE IMPORTANCE of keeping chronological records of all dealings with government agencies is most essential these days since investigating committees operating for government agencies and Congress are "on the loose" in search of fraudulent dealings. If you are accused and can't produce complete chronological records you will have difficulty in proving your innocence.

★ ★ ★

IF YOU CAN GET a copy of General Motors' most recent report to employees, by all means do it. It is full of meaty suggestions for those who would build better employee relations through telling the facts about your operations in layman's language.

★ ★ ★

ENCOURAGING NEWS is coming out of the banking fraternity these days. No less than A. L. M. Wiggins, president of the American Bankers Association declares "the largest sum of money in American history is ready to give the country an economic blood transfusion, once fear of the future has vanished." He points out that venture capital and risk taking characterizes our enterprise system but money will not come out of hiding until government ceases to become over-centralized, and the present uneconomic tax system is discontinued, and until the public has been convinced

that there are real opportunities for successful employment of capital.

The Connecticut Bankers Association, headed by Lester E. Shippee, vice-president of the Hartford-Connecticut Trust Company, is "on the march" toward a pooling method of financing both small and large business in the postwar period. It has a committee at work and doesn't propose to let government agencies have all the loan business. If you want to back up the financial side of private enterprise, why not investigate the Bankers Association's new formula in the event you need cash or credit for your business, and are not able to get it readily from your present source?

★ ★ ★

IF YOU ARE AN industrial advertising man, an agency man or a business man without an agency who wants to do some advertising that will help your business and the war effort at the same time, we suggest you write for the booklet "You Have a Share in Your Town's Postwar Jobs and Profits," published by the Graphic Arts Victory Committee in cooperation with the United States Department of Commerce. It may be secured by writing the U. S. Department of Commerce, Washington, D. C.

★ ★ ★

"A BIBLIOGRAPHY on Postwar Planning" which should be very useful to anyone dealing with problems of distribution may be secured by writing Time, Incorporated, Rockefeller Plaza, New York 20, N. Y.



TRANSPORTATION

By N. W. FORD

*Manager and
Traffic Manager*

CLASSIFICATION RULE 33—MULTIPLE LOADING. Division 2 of the Interstate Commerce Commission recently released its decision in I. & S. Docket No. 5268, Classification Rule 33—Multiple Loading, in which it found that the rule as published by the carriers was unjust and unreasonable in part and recommended that the carriers should give consideration to a modification of the rule, which was outlined by the Commission.

Following the issuance of O.D.T. Order 18-A, the carriers believed that it was incumbent upon them to revise Rule 33. Their original amendment to the rule, which was suspended by the Commission, provided in substance for (a) the continuance of the provision permitting three consignors to consolidate shipments in a single car, but carried a reduction of the number of origins at which such consolidations could be made from three to one and (b) proposed placing the responsibility upon the consignors

for loading at origins and restowing and rebracing at intermediate points.

In its order, the Commission recommended that the carriers modify the provision enumerated in (a) above to permit multiple loading by the same shipper at more than one origin and that the additional origin or origins might be limited to those within reasonable distance of the initial origin. In this connection, the carriers had construed the term "one point of origin" in O.D.T. 18-A to include only locations within a switching distance. With respect to the responsibility for stowing and bracing, the Commission suggested the publication of a new paragraph reading substantially as follows:

"Consignors who load shipments in or on a single car as authorized by this rule shall load the car in such manner that no restowing or rebracing of the freight is necessary at any destinations intermediate to the final destination of the car due to the removal of freight

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from the car at such intermediate destination; and where a car is not so loaded such consignors shall provide, through the consignees or otherwise, for such restowing or rebracing of the freight remaining in the car at any intermediate destination as may be necessary due to the removal of freight from the car at such intermediate destinations."

The rule now under suspension is to be canceled on or before July 13, 1944. (The rail carriers' committee decided to accept the Commission's proposal and has directed the Consolidated Classification Committee to publish the revised rule, except that the portion referred to in (a) above will not carry any restrictions as to distance from the initial point of loading in connection with multiple loads.)

★ ★ ★

CONTRACT CARRIER RATE LEGAL IF ABOVE OPERATING COST. A decision, handed down in a case known as MC-C-101, Ex Parte No. 34, has been announced by Di-

vision 3 of the Interstate Commerce Commission. This has the effect of protecting motor contract carrier revenues and has been awaited since October 31, 1938, when certain common carriers in northwestern territory filed a complaint charging that rates of various contract carriers were unlawful and should be corrected.

In its findings, Division 3 held that, in the absence of any unlawfulness of rates, no minimums should be set and that should a rate be held to be unlawful, the I.C.C. in prescribing a minimum should give due consideration to the contract hauler's cost of operation. As a part of its decision, it found certain of the contract carrier rates involved to be unlawful because they did not produce sufficient revenues to cover full operating costs and still leave a reasonable profit. In prescribing rates which would be lawful, the Division held that in the particular instance the rate should be such as would yield not less than 14 cents a truck mile "for the round trip distance", while permitting the contractor to maintain a higher minimum weight

than could be carried in a single vehicle.

★ ★ ★

TRANSPORTATION PRIORITIES FOR DISABLED SERVICEMEN:—In a certification and order announced by the Office of Defense Transportation and the Interstate Commerce Commission, transportation preference and priorities for disabled military, naval and merchant marine personnel are provided to assist the nation's railroads in their plans for handling military casualties.

This action provides for cancellation of reservations, space assignments or tickets and permits the railroads to require passengers to vacate space and accommodations when necessary to provide space for casualties. In addition, the action requires the railroads, when necessary, to divert transportation facilities or cancel or discontinue passenger train service and to refuse permission to passengers, other than invalid troops and their attendants, to board passenger trains.

ACCOUNTING HINTS

Contributed by the Hartford Chapter National Association of Cost Accountants to stimulate the use of better accounting techniques in industry.

ALL employers subject to the provisions of federal law relating to withholding of income taxes from wages paid employees, will be faced with a task of considerable size before December 1, 1944. By that date all employees will be required to submit new withholding exemption certificates revealing the number of "withholding exemptions" which they may be entitled to claim as of January 1, 1945. Then, with the first payment of wages on or after January 1, 1945, the employer will deduct the tax to be withheld based on the revisions in rates and tables which were made in the "Individual Income Tax Act of 1944".

The new methods of withholding will replace those now in effect, and there is the choice of using the so called percentage method or the table method as in the present law. However, the new percentage method is much more complex than the present percentage method and it seems likely that many employers will prefer to use the tables which are constructed with much smaller brackets than the official tables which were provided in the original law relating to withholding taxes. Consequently there will need to be some rearrangement of payroll procedures and accounting to accommodate the withholding methods which will be effective January 1, 1945.

In connection with the securing of the new exemption certificates it will be noted that the family status exemptions, as under the present withholding methods, will not necessarily agree with the dependency exemptions to be claimed under the new law and probably some difficulty will be encountered by employees in understanding the differences.

The regulations relating to the new certificates are not available as this is written (July 17) but it appears that, if employees are hired during the period prior to January 1, 1945, when the new certificates are being requested, it will be necessary to secure certificates under the present law for withholding from payrolls paid up to December 31, 1944, as well as the new certificates for withholding after that date. The method of claiming exemptions will differ as pointed out in the foregoing, unless the forthcoming regulations simplify the procedures in some way.

★ ★ ★

Hartford Chapter of the National Association of Cost Accountants will resume its monthly meetings on September 19. The place of the meeting will be announced.



EXPORT NEWS

By W. ADAM JOHNSON, *Director,*
Foreign Trade Dept., and Manager
Hartford Cooperative Office, Bureau of
Foreign and Domestic Commerce.

THE LATIN AMERICAN MARKET FOR CONNECTICUT MANUFACTURERS:—As an indication of the Latin American market and the capacity of our neighbors to buy and pay for goods, a few statistics are of interest.

The total Latin American national income in 1943 was \$13,829,860,000. This is more than 40 per cent above their 1940 figure and was distributed as follows in 1943:

Mexico	\$1,649,000,000
Caribbean Islands ..	1,155,540,000
Central America	715,300,000
South America	10,310,020,000

Our neighbors do have a sizeable gold and foreign exchange reserve with which they are anxious to buy goods from us. Listed below are a few of countries that have sizeable reserves and trade balances.

Although these figures show the gold and foreign exchange reserves without specifying the quantity of each, it is understood that more than half of the total held at the end of 1943 was in the form of gold.

United States exports to the other American republics in 1943 aggregated

\$819,000,000, as compared with a prewar value of \$481,000,000 in 1938, and the high level of \$902,000,000 in 1941, when the United States was still able to furnish unusually large quantities of supplies including some goods formerly obtained from other sources, and the more depressed volume of \$718,000,000 in 1942 that came with shortages of merchant vessels and strict controls on exports after our entry into the war. Trade with these countries, mainly representing cash transactions negotiated through commercial channels, comprised approximately 30 per cent of our cash, or non Lend-Lease export trade in 1943, though it represented only 6½ per cent of total exports including Lend-Lease shipments.

Total import trade increased to a new wartime high of \$1,310,000,000, an advance of 34 per cent above the 1942 value, 30 per cent over 1941, and 142 per cent from the prewar average of 1936-38.

The significance of the marked expansion in the trade lies in its substantial contribution to the war effort. Increases in imports from the other American Republics denote the pro-

curement of additional foodstuffs for this country, besides the acquisition, under Government sponsorship, of strategic materials, which, together with our own ingenious development of substitute materials, made possible the enormous production of implements of war.

The expansion in exports demonstrates the practical application of the Good Neighbor policy and Western Hemisphere collaboration.

All the countries to the south are looking to us as a source of machine tools, scientific know-how, and management. These are the things which Connecticut has in abundance. At the same time it should be stressed again that foreign trade is a two-way street. Exports cannot continue if imports are not brought from these other countries so that they may have exchange with which to buy our goods.

The Latin American countries have supplied us with many raw materials without which it would have been difficult to carry on our great war program. They can continue to supply these goods to us and many others which they have not as yet fully developed.

To develop these resources and to industrialize their nations, they are going to demand a tremendous supply of goods. Connecticut should be in a position to supply this material and thereby keep employed thousands of people which otherwise would not be able to find jobs.

★ ★ ★

AUSTRALIA'S ATTITUDE ON COMMISSIONS. Sharp criticism has been aroused by the recent action of the Australian Government in arbitrarily cutting the rate of commission on Lend-Lease orders paid by American manufacturers to their regular, long established authorized representatives in Australia.

In January the Division of Import Procurement in Australia notified representatives of American hand, standard small and precision measuring tools that it had been decided that a flat rate of 1% of the net U.S.A. factory cost of hand, standard small and precision measuring tools will be given to the accredited Australian agents of American manufacturers of any such tools procured under Lend-Lease and made available by the Commonwealth Government for use in Australia, provided that the agent renders the usual technical advice and service as is customary in the trade and enters

Gold and Foreign Exchange Reserves
(in Millions of \$)^a

Net Trade Balances
in Millions of \$ in
1943^b

	End of 1939	End of 1941	End of 1942	End of 1943 ^c	Increase during 1943 ^e	Total Trade ^c	U. S. Trade ^d
Argentina	592	568	721	1,088	+367	+407	+120 ^f
Brazil	67	104	238	525	+295	+150	+72
Mexico	34	53	72	250	+178	+41	+15
Cuba	22	40	127	226	+99	+165	+157

^a Based on disclosed data and converted to U. S. dollars at varying rates.

^b Plus indicates an excess of exports and minus an excess of imports; includes merchandise, gold and silver.

^c Based on foreign trade statistics of Latin American countries; partly estimated.

^d Based on foreign trade statistics of United States.

^e Partly estimated.

^f Excludes gold movement.

into a formal agreement with the Commonwealth to render such advice and service in return for the said remuneration.

While some of the Lend-Lease figures are large, there has been such an interference with commercial shipments that the representatives cannot live on anything like a 1% commission paid on Lend-Lease orders.

Objection is made in Australia, and apparently shared in the United States, that inasmuch as British shipments are made entirely through commercial channels to Australia and British manufacturers are permitted to remunerate their representatives in the usual

manner, the result of this situation is that American trade is discriminated against.

Thus the Australian Government is placed in the position of accepting Lend-Lease aid from the United States and at the same time drying up the channels of American trade in Australia and turning that trade over to competitive manufacturers in Great Britain.

Politically the situation is most unfortunate not only as regards the Australian Government's seeming to throw its weight against American manufacturers in favor of British manufacturers but playing into the hands of those American legislators who are somewhat hostile to the Lend-Lease program in general. Since it places the American Government in the unfortunate position of extending Lend-Lease aid to Australia which at the same time results in drying up our channels of trade there.

The whole situation is so fraught with possibilities of friction and in-

justice as to jeopardize the good relations it is so important for the American and Australian people to continue in the difficult post-war era of reconstruction and return to normal trade.

In recent months there has been a growing disposition on the part of various British purchasing missions to demand that the American manufacturer, in making a bid to these purchasing missions, specify that no commission was being paid and the missions have undertaken to "idemnify to the extent of (value) against any bona fide claim or demand from (name of overseas representative)".

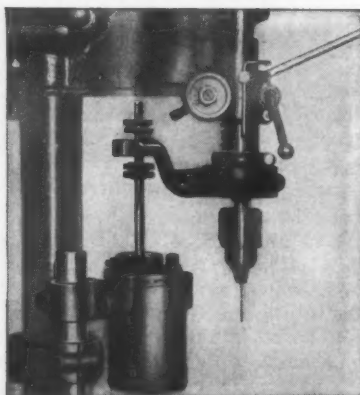
This policy has led to a great deal of confusion, criticism and uneasiness and in several cases American manufacturers have refused orders from some of the British purchasing missions unless they removed the clause with reference to payment of commissions.

And in many cases such refusal has been followed by an amended order with that clause omitted.

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. . . permits maximum production . . .
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. . . controls break-through.

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Special **COMPANY** *Devices*
BERLIN, CONN.

FOUR HORSEMEN OF TWI

(Continued from page 14)

industrial supervisors, several of the skills that are an essential part-and-parcel of every capable supervisor. This concept gives rather a new twist to the term "training". We, in management, have seldom thought of training ourselves intensively for good instruction on the job, or of deliberately setting a plan to train all supervisors to analyze and improve each little job, or of making a concentrated training effort to develop good leadership among supervisors.

It might also seem that Training Within Industry was thinking particularly of Connecticut when they devised their several programs. Some parts of the U.S.A. can look to natural resources for their future prosperity. The natural resources of Connecticut are found in the skill of our workers. TWI has chosen to serve our workers by helping us develop better supervision.

This program is a war time activity insofar as TWI is concerned. Nevertheless, every business man recognizes the fact that in the highly competitive post war years, a well trained work force will be essential for the pros-

perous survival of an industrial enterprise.

As the War Manpower Commission, of which TWI is now a constituent agency, has developed its organization on an area basis, TWI has assigned Field Representatives to the critical WMC areas. These men assist managements to initiate the programs and to establish procedures for continuing use. Each of these area men, as is true of all of the TWI staff, has a heavy load to carry. TWI recognizes that its obligation is to serve the most critical companies first and then those companies of lesser urgency. In close cooperation with area operations, TWI has shifted its impact from aircraft to ball bearings, to foundries, to radar, to landing craft, to munitions, to rubber, or to submarines as each has become of highest urgency.

In February 1944, Industry's Star Award was presented to Training Within Industry by the National Association of State Chambers of Commerce, the first recorded instance of an industry award to a government agency for its contribution to the war production effort.

It will be a real source of satisfaction to me if my foregoing remarks constitute a tribute to the untiring efforts of the TWI men in District Two.



PERSONNEL

By JOHN P. AHERN

Executive Assistant

"I AM an American. I was born and reared in Hartford, in the state of Connecticut—anyway, just over the river, in the country. So I am a Yankee of the Yankees—and practical; yes, and nearly barren of sentiment, I suppose—or poetry, in other words. My father was a blacksmith, my uncle was a horse-doctor, and I was both, along at first. Then I went over to the great arms factory and learned my real trade; learned all there was to it; learned to make everything; guns, revolvers, cannon, boilers, engines" . . . "Why, I could make anything a body wanted—anything in the world, it didn't make any difference what; and if there wasn't any quick new-fangled way to make a thing, I could invent one—and do it as easy as rolling off a log. I became head superintendent; had a couple of thousand men under me."

The above is taken from "A Connecticut Yankee in King Arthur's Court" written fifty-five years ago. Mark Twain was not the first to eulogize the Connecticut artisan when he wrote, "Why, I could make anything a body wanted—anything in the world," but his statement carries over to 1944.

We certainly are embroiled in the war and are still making "guns, cannon, boilers, engines." Nevertheless, the receptive Connecticut mind has absorbed the new ideas and methods that production for war impresses upon manufacturing. New ideas for improving established products and ideas for new products, however embryonic, have emerged and accelerated plans for manufacture for civilian use, now the forgotten stepchild of the country in the rush to victory.

Research facilities and procedures are being sought out. Lest Connecticut industry develop a false idea of research, based upon million-dollar laboratories replete with test tubes and intricate measuring devices, I would

like to cite the research practice of a small Connecticut hardware firm. Their product is a standard one, lending itself little to change. Nevertheless, they are developing a system of utilizing field men to call on customers in a sales engineering capacity—the idea being to continually be on the lookout for new uses of their product. This is real research carried out on the consumption line. Other small firms are planning to depend on big brother firms in their vicinity for help besides using public and private facilities. In addition, the state association is planning to release shortly a directory of research facilities in the state.

Why this emphasis on research and what does it have to do with personnel? Lately we have been beleaguered with statements that the golden age is past for this state—that large government-built plants outside the state will be bought at knockdown prices and enter into fierce competition with Connecticut industry. Some in the very advanced stages of apprehension

imply an arch move on the part of visionary do-gooders of decentralizing industry and visualize prairie dogs trained to insert Connecticut-made screws into competitive goods made beyond the Eastern watershed.

Any fears that the men who make Connecticut goods will move en masse to far points can be allayed by simply sitting in the Association office and talking to a good deal of these very men who have traveled afar and are now intent upon a native's return to the good old Connecticut hills. Governor Baldwin stated recently at a luncheon I attended that some means of eliminating outside competition are to expand the educational and recreational facilities of the state, thereby making it even more attractive so that its citizens will be more adhesive to their native heaths.

Further, we are not a mass production state, except for the war period, and employment is dependent upon fabricators of small products requiring a high degree of skill. This skill, a Connecticut tradition, has been further advanced by the spontaneous reception of industrial training by Connecticut industry.

Over 90% of our industries employ less than five hundred people and in order to insure their survival and growth, as in the past, not only time-tested products must be made but new ones as well. After all, sales make jobs. The corollary to a factory with big orders is a large payroll. The corollary to a large payroll is full employment for Connecticut citizens—not the least of which are the returning veterans.

BUSINESS PATTERN

A comprehensive summary of the ups and downs of industrial activity in Connecticut for the thirty day period ending on the 15th day of the previous month.

THE index of general business activity in Connecticut declined 3.6 percentage points in June to an estimated 85.7% above normal. Down 15.2 points from the first of the year, the index is now lower than

at any time since this country entered the war in December 1941. Employment and manhours both declined for the fifth consecutive month; the index of rail tonnage, having held to a fairly high level during the first four months

of the year, dropped sharply in May and June; construction and cotton indices remained approximately unchanged throughout the first half of this year. In June the United States index of industrial activity fell off for the fourth consecutive month to an estimated 36.0% above normal.

The index of manufacturing employment in Connecticut declined fractionally in June to an estimated 75.8 above normal. Employment in this State reached its peak in July of last year registering 101.0% above normal and from that level has decreased each month, except January, to the present position. The national index of factory employment was at its highest point in November 1943, four months later than the Connecticut index, and has also been dropping gradually since that time.

During recent months, in addition to employees entering the armed services, a gradual but noticeable withdrawal from the labor force is occurring. This is particularly the case in areas where cutbacks and contract cancellations take place. Some of the explanations offered for this loss of workers are: the taking of jobs in peacetime industry, moving from areas of acute labor shortage to their former homes; leaving present jobs to shop around for work with higher long-pull pay prospects, and quitting work altogether to return to homemaking. It is hoped that the nationwide priority referral system established by the War

Manpower Commission will hold workers in the active wartime labor force.

The transition from a wartime to a peacetime economy progressed further with the recent announcement by the War Production Board of a series of four orders: first, issued July 15, releases aluminum and magnesium for the production of civilian goods; second, effective July 22, permits manufacturers to make working models of the post-war items they hope to produce; third, expected August 1, will allow a producer to acquire machine tools and other production machinery necessary to peacetime production lines; and fourth, scheduled for August 15, will permit a manufacturer to produce civilian goods in any area where his operations will not take manpower or production facilities from war work.

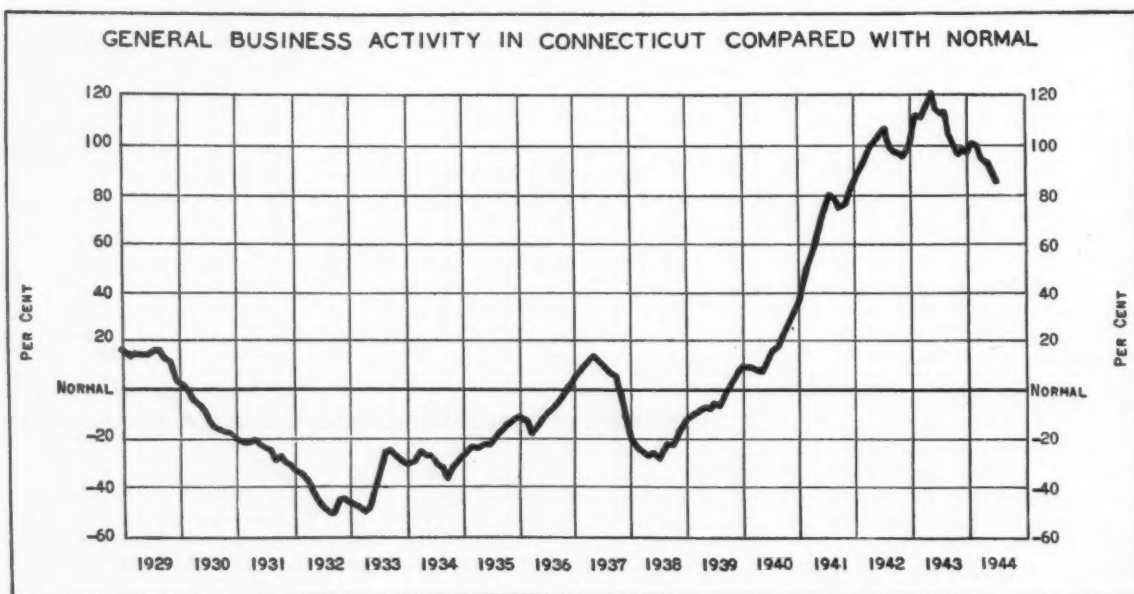
The June index of manhours worked in Connecticut factories fell off slightly to an estimated 134.2% above normal. The decline in manhours has followed closely the reduction in employment during the first half of this year being 16.4 percentage points below the January 1944 figure and 35.1 points under the July 1943 index.

More employees will take time off for vacations this year than in the preceding war years. Many of the larger firms are urging their employees to take vacations and without the ban on pleasure driving and with a feeling of release from war pressure employees are taking advantage of the opportunity. There are various arrangements for

paid vacations among industrial workers with the trend toward more liberal vacation allowances. Connecticut is experiencing a record vacation year as its increased war population as well as persons from neighboring states crowd the shore and country areas.

The index of freight shipments originating in eight Connecticut cities fell off in June to 39.2% above normal. The sharp decline this month is similar to that experienced in June of last year when the index was down 20.5 percentage points. Actual tonnage loaded during June was only slightly under the volume of the preceding month as four cities showed decreases and four points reported somewhat larger shipments. One reason for the drop in the June index in the last two years is due to the fact that in normal times freight shipments in June are exceptionally heavy and allowances are made to eliminate the effect of the seasonal variation. During the recent war years shipments run consistently heavy each month regardless of seasonal factors and therefore the seasonal adjustment tends to reduce the June index figure.

A recent announcement by the Defense Transportation Director stated that approximately 70% of the railroads' freight traffic and 50% of their passenger traffic now are directly or indirectly identified with the war effort. Present concern is with passenger traffic where summer vacation travel is well above last year and the heavy military demands are continuing to grow.



IT'S MADE IN CONNECTICUT

EDITOR'S NOTE: This department, giving a partial list of peace-time products manufactured in Connecticut by company, seeks to facilitate contacts between prospective purchasers in domestic or foreign markets and producers. It includes only those listings ordered by Connecticut producers. Interested buyers may secure further information by writing this department.

(Advertisement)

Accounting Forms		Barrels		Brass and Bronze	
The Baker Goodyear Co	New Haven	The Abbott Ball Co (burnishing and tumbling)	Hartford	The American Brass Co (sheet, wire rods, tubes)	Waterbury
Accounting Machines		The Hartford Steel Ball Co (tumbling)	Hartford	The Bristol Brass Corp (sheet, wire, rods)	Bristol
Underwood Elliott Fisher Co	Hartford	Bathroom Accessories		The Miller Company (phosphor bronze and brass in sheets, strips, rolls)	Meriden
Adding Machines		The Autoyre Company	Oakville	The Thinsheet Metals Co (sheets and rolls)	Waterbury
Underwood Elliott Fisher Co	Hartford	The Charles Parker Co	Meriden	Brass Goods	
Advertising Specialties		Bath Tubs		Sargent and Company	New Haven
The H C Cook Co 32 Beaver St	Ansonia	Dextone Company	New Haven	Scovill Manufacturing Co (To Order)	Waterbury
Scovill Manufacturing Co (Made to Order)	Waterbury	Bearings		Brass Mill Products	
Waterbury Companies Inc	Waterbury	New Departure Div of General Motors (ball)	Bristol	Bridgeport Brass Co	Bridgeport
Aero Webbing Products		The Fafnir Bearing Co (ball)	New Britain	Scovill Manufacturing Co	Waterbury
Russell Mfg Co	Middletown	Norma-Hoffmann Bearings Corp	(ball and roller)	Brass Stencils—Interchangeable	
Air Compressors		Bells		The Fletcher Terry Co	Box 415, Forestville
The Spencer Turbine Co	Hartford	Bevin Brothers Mfg Co	East Hampton	Brick—Building	
Aircraft		The Gong Bell Mfg Co	East Hampton	The Donnelly Brick Co	New Britain
Chance Vought Aircraft Division	United Aircraft Corporation (airplanes)	Sargent and Co	New Haven	Bricks—Fire	
Sikorsky Aircraft Division	United Aircraft Corporation (helicopters)	The N N Hill Brass Co	East Hampton	Howard Company	New Haven
Aircraft Accessories		Belting		Broaching	
Chandler Evans Corp (aircraft carburetors, fuel pumps, water pumps & Protek plugs)	South Meriden	Hartford Belting Co	Hartford	The Hartford Special Machinery Co	Hartford
Warren McArthur Corp (Airplane Seating)	Bantam	The Russell Mfg Co	Middletown	Brooms—Brushes	
Aircraft—Repair & Overhaul		The Thames Belting Co	Norwich	The Fuller Brush Co	Hartford
Airport Department Pratt & Whitney Aircraft Division		Benches		Buckles	
Rentschler Field East Hartford		The Charles Parker Co (piano)	Meriden	The Hatheway Mfg Co (Dee Rings)	Bridgeport
United Airports Div United Aircraft Corp		Bent Tubing		The Hawie Mfg Co	Bridgeport
Rentschler Field East Hartford		American Tube Bending Co Inc	New Haven	The G E Prentice Mfg Co	New Britain
American Tube Bending Co Inc		Bicycle Coaster Brakes		John M. Russell Mfg Co Inc	Naugatuck
Airplanes		New Departure Div General Motors Corp	Bristol	B Schwanda & Sons	Staffordville
Chance-Vought Aircraft Div	United Aircraft Corp	Bicycle Sundries		The Patent Button Co	Waterbury
Newton-New Haven Co 688 Third Avenue	West Haven	New Departure Div General Motors Corp	Bristol	Waterbury Companies Inc	Waterbury
Aluminum Castings		Binders Board		Buffing & Polishing Compositions	
Scovill Manufacturing Co (small)	Waterbury	Colonial Board Company	Manchester	Apothecaries Hall Co	Waterbury
Aluminum Goods		Ernst Bischoff Company Inc	Ivoryton	Lea Mfg Co	Waterbury
Scovill Manufacturing Co (To Order)	Waterbury	Biological Products		Buffing Wheels	
Waterbury Companies Inc	Waterbury	Blades		The Williamsville Buff Mfg Co	Danielson
Aluminum—Sheets & Coils		Capewell Manufacturing Company, Metal Saw Division, (hack saw and hand saw)	Hartford	Buttons	
United Smelting & Aluminum Co Inc	New Haven	Blocks		B Schwanda & Sons	Staffordville
Ammunition		Howard Company (cupola fire clay)	New Haven	The Patent Button Co	Waterbury
Remington Arms Co Inc	Bridgeport	Blower Fans		Colt's Patent Fire Arms Mfg Co	Hartford
Artificial Leather		The Spencer Turbine Co	Hartford	Scovill Manufacturing Co (uniform and tack fastened)	Waterbury
The Permatex Fabrics Corp	Jewett City	Colonial Blower Company	Hartford	Waterbury Companies Inc	Waterbury
Zapon Div, Atlas Powder Co	Stamford	Blower Systems		Cabinets	
Asbestos		Colonial Blower Company	Hartford	The Charles Parker Co (medicine)	Meriden
Rockbestos Products Corp (insulated wire, cable and cords)	New Haven	Boilers		The Wiremold Co (electric, non-metallic sheathed)	Hartford
The Raybestos Div of Raybestos-Manhattan Inc (brake lining, clutch facings, sheet packing and wick)	Bridgeport	The Bigelow Co	New Haven	Cams	
Asbestos & Rubber Packing		Petroleum Heat & Power Co (domestic only)	Stamford	The Hartford Special Machinery Co	Hartford
Colt's Patent Fire Arms Mfg Co	Hartford	Bolts and Nuts		Canvas Products	
Assemblies, Small		Clark Brothers Bolt Co	Milldale	F B Skiff Inc	Hartford
The Greist Manufacturing Co.	New Haven	The O K Tool Co Inc (T-Slot)	33 Hull St Shelton	Carpets and Rugs	
The Wallace Barnes Co Div, Associated Spring Corp	Bristol	The Blake & Johnson Co (nuts, machine screw-bolts, stove)	Waterville	Bigelow-Sanford Carpet Co	Thompsonville
Auto Cable Housing		Boxes		Carpet Lining	
The Wiremold Company	Hartford	Robert Gair Co (corrugated and solid fibre shipping containers)	Portland	Palmer Brothers Co	New London
Automatic Control Instruments		Box Board		Casters	
The Bristol Co (temperature, pressure, flow, humidity, time)	Waterbury	The Lyndall & Foulds Paper Co	Manchester	The Bassick Company (Industrial and General)	Bridgeport
Automobile Accessories		National Folding Box Co	New Haven	Casters—Industrial	
The Rostand Mfg Co (windshields, seats, and body hardware)	Milford	New Haven Pulp & Board Co	New Haven	George P Clark Co	Windsor Locks
The Raybestos Div of Raybestos-Manhattan Inc (brake lining, rivets brass, clutch facings, packing)	Bridgeport	Robertson Paper Box Co	Montville	Castings	
Automotive Friction Fabrics		Robert Gair Co	Portland	The Charles Parker Co (gray iron)	Meriden
The Russell Mfg Co	Middletown	Boxes—Paper—Folding		The Bradley & Hubbard Mfg Co (gray iron, brass, bronze, aluminum)	Meriden
Automotive & Service Station Equipment		Atlantic Carton Corp	Norwich	The Gillette-Vibber Co (gray iron, brass, bronze, aluminum, also Bronze Bushing Stock)	New London
Scovill Manufacturing Co (Canned Oil Dispensers)	Waterbury	Bridgeport Paper Box Co	Bridgeport	The Sessions Foundry Co (gray iron)	Bristol
The Raybestos Div of Raybestos-Manhattan Inc (brake service machinery)	Bridgeport	S Curtis & Son Inc	Sandy Hook	John M Russell Mfg Inc (brass, bronze and aluminum)	Naugatuck
Bakelite Moldings		M S Dowd Carton Co	Hartford	Malleable Iron Fittings Co (malleable iron and steel)	Branford
Waterbury Companies Inc	Waterbury	National Folding Box Co (paper folding)	New Haven	McLagon Foundry Co (gray iron)	New Haven
Balls		The Warner Brothers Company	Bridgeport	Newton-New Haven Co (zinc and aluminum)	688 Third Ave West Haven
The Abbott Ball Co (steel bearing and burnishing)	Hartford	The New Haven Pulp & Board Co	New Haven	Philbrick-Booth & Spencer Inc (gray iron)	Hartford
The Hartford Steel Ball Co (steel bearing and burnishing, brass, bronze, monel, stainless, aluminum)	Hartford	Robert Gair Co	Portland	Scovill Manufacturing Co (brass and bronze)	Waterbury
Brake Service Parts		Boxes—Paper—Setup		Union Mfg Co (gray iron)	New Britain
Eis Manufacturing Co	Middletown	Bridgeport Paper Box Co	Bridgeport	Wilcox Crittenden & Co Inc (gray iron and brass)	Middletown
Brake Cables		Brake Linings		Castings—Permanent Mould	
Brake Linings		Eis Manufacturing Co	Middletown	The Bradley & Hubbard Mfg Co (zinc and aluminum)	Meriden
Colt's Patent Fire Arms Mfg Co	Hartford	Brake Service Parts		Centrifugal Blower Wheels	
The Raybestos Div of Raybestos-Manhattan Inc (automotive and industrial)	Bridgeport	Brake Service Parts		The Torrington Manufacturing Co	Torrington
The Russell Mfg Co	Middletown	Brake Service Parts		Chain	
Brake Service Parts		Brake Service Parts		John M. Russell Mfg Co Inc	Naugatuck
Brake Service Parts		Brake Service Parts		Chain—Welded and Weldless	
Brake Service Parts		Brake Service Parts		Bridgeport Chain & Mfg Co	
Brake Service Parts		Brake Service Parts		Bridgeport Chain & Mfg Co	

IT'S MADE IN CONNECTICUT

Chains—Bead			
The Bead Chain Mfg Co	Bridgeport		
Chemicals			
Apothecaries Hall Co	Waterbury		
MacDermid Incorporated	Waterbury		
American Cyanamid & Chemical Corp	Waterbury		
Chromium Plating			
Chromium Corp of America	Waterbury		
The Chromium Process Company	Derby		
Chucks & Face Plate Jaws			
Union Mfg Co	New Britain		
Clamps—Wood Workers			
Sargent and Company	New Haven		
Clay			
Howard Company (Fire Howard "B" and High Temperature Dry)	New Haven		
Cleansing Compounds			
MacDermid Incorporated	Waterbury		
Clutch Facings			
The Russell Mfg Co	Middletown		
Clutch—Friction			
The Carlyle Johnson Mach Co (Johnson Expanding Ring; Multiple Disc Maxitorg)	Manchester		
The Raybestos Div of Raybestos-Manhattan Inc (clutch facings—molded, woven, fabric, metallic)	Bridgeport		
Comfortables			
Palmer Brothers Co	New London		
Cones			
Sonoco Products Co (Climax-Lowell Div) (Paper)	Mystic		
Consulting Engineers			
The Stanley P Rockwell Co Inc (Consulting)	Hartford		
296 Homestead Ave			
Contract Machining			
Malleable Iron Fittings Company	Branford		
Contract Manufacturers			
The Greist Mfg Co (metal parts and assemblies)	New Haven		
503 Blake St			
Copper			
The American Brass Co (sheet, wire, rods, tubes)	Waterbury		
The Bristol Brass Corp (sheet)	Bristol		
Scovill Manufacturing Co (pipe and service tubing)	Waterbury		
The Thinsheet Metals Co (sheets and rolls)	Waterbury		
Copper Sheets			
The New Haven Copper Co	Seymour		
Copper Shingles			
The New Haven Copper Co	Seymour		
Copper Water Tube			
Bridgeport Brass Co	Bridgeport		
Cork Cots			
Sonoco Products Co (Climax-Lowell Div)	Mystic		
Corrugated Box Manufacturers			
The Danbury Square Box Co	Danbury		
Corrugated Shipping Cases			
D L & D Container Corp	87 Shelton Ave		
Connecticut Corrugated Box Div	Robert Gair Co Inc		
Cosmetics			
Northam Warren Corporation	Stamford		
The J B Williams Co	Glastonbury		
Cotton Batting & Jute Batting			
Palmer Brothers	New London		
Cotton Yarn			
The Floyd Cranska Co	Moosup		
Counting Devices			
Veeder-Root Inc	Hartford		
Cut Stone			
The Dextone Co	New Haven		
Cutters			
The Standard Machinery Co (rotary board, single and duplex)	Mystic		
The O K Tool Co Inc (inserted tooth milling)	33 Hull St		
Delayed Action Mechanisms			
M H Rhodes Inc	Hartford		
Dictating Machines			
Dictaphone Corporation	Bridgeport		
The Soundsciber Corporation	New Haven		
Die Castings			
Newton-New Haven Co Inc	688 Third Ave		
Die Castings (Aluminum & Zinc)			
Corbin Cabinet Lock Div American Hardware Corp	New Britain		
Dies			
The Hoggson & Pettis Mfg Co	141 Brewery St		
Die-Heads—Self-Opening			
The Eastern Machine Screw Corp	Truman & Barclay Sts		
The Geometric Tool Co	New Haven		
Dish Washing Machines			
Colt's Patent Fire Arms Mfg Co	Hartford		
Dowel Pins			
The Allen Manufacturing Co	Hartford		
Draperies			
Palmer Brothers Co	New London		
Drop Forgings			
Wilcox Crittenden & Co Inc	Middletown		
The Blakeslee Forging Co	Plantsville		
Atwater Mfg Co	Hartford		
Capwell Mfg Company	Hartford		
The Bridgeport Hdwe Mfg Corp	Bridgeport		
Druggists' Rubber Sundries			
The Seamless Rubber Company	New Haven		
Edged Tools			
The Collins Co (axes and other edged tools)	Collinsville		
Elastic Webbing			
The Russell Mfg Co	Middletown		
Electric Appliances			
The Silex Co	80 Pliny St		
Electric Cables			
Rockbestos Products Corp (asbestos insulated)	New Haven		
Electrical Conduit Fittings & Grounding Specialties			
The Gillette-Vibber Company	New London		
Electric Cords			
Rockbestos Products Corp (asbestos insulated)	New Haven		
Electric Eye Control			
United Cinephone Corporation	Torrington		
Electric—Commutators & Segments			
The Cameron Elec Mfg Co (rewinding motors)	Ansonia		
Electric Fixture Wire			
Rockbestos Products Corp (asbestos insulated)	New Haven		
Electric Heating Element & Units			
Rockbestos Products Corp (asbestos insulated)	New Haven		
Electric Insulation			
The Rogers Paper Mfg Co	Manchester		
Case Brothers Inc	Manchester		
Electric Panel Boards			
The Plainville Electrical Products Co	Plainville		
Electric Wire			
Rockbestos Products Corp (asbestos insulated)	New Haven		
The Whitney Blake Co (Graybar Elec Co Exclusive Distributors)	Hamden		
Electrical Control Apparatus			
The Trumbull Electric Mfg Co	Plainville		
Electrical Recorders			
The Bristol Co	Waterbury		
Electrical Goods			
A C Gilbert Co	New Haven		
Electronics			
The Gray Manufacturing Company	Hartford		
Electrotypes			
W T Barnum & Co Inc (all classes)	New Haven		
Elevators			
The Eastern Machinery Co (passenger and freight)	New Haven		
General Elevator Service Co Inc (freight, passenger and residence)	Hartford		
Embalming Chemicals			
The Embalmers' Supply Co	Westport		
Engines			
Wolverine Motor Works Inc (diesel stationary marine)	Bridgeport		
Pratt & Whitney Aircraft Div	United Aircraft Corp (aircraft)		
Envelopes			
Plimpton Mfg Co Div U S Envelope Co	Hartford		
Curtis 1000 Inc	Hartford		
Extractors—Tap			
The Walton Co	94 Allyn St		
Eyelets			
The Platt Bros & Co P O Box 1030	Waterbury		
Scovill Manufacturing Co	Waterbury		
Waterbury Companies Inc	Waterbury		
Fasteners—Slide & Snap			
The G E Prentice Mfg Co	New Britain		
Sargent and Co	New Haven		
Scovill Manufacturing Co (snap)	Waterbury		
FELT—All Purposes			
American Felt Co (Mills & Cutting Plant)	Glenville		
Ferrules			
Waterbury Companies Inc	Waterbury		
Fibre Board			
The C H Norton Co	North Westchester		
The Rogers Paper Mfg Co (Specialty)	Manchester		
Case Brothers Inc	Manchester		
Finger Nail Clippers			
The H C Cook Co	32 Beaver St		
Firearms			
Colt's Patent Fire Arms Mfg Co	Hartford		
Remington Arms Co Inc	Bridgeport		
Fire Hose			
Fabrics Fire Hose Co (municipal and industrial)	Sandy Hook		
Fireplace Goods			
The John P Smith Co (screens)	423-33 Chapel St		
The Rostand Mfg Co	New Haven		
The American Windshield & Specialty Co	Milford		
881 Boston Post Road	Milford		
Fireproof Floor Joists			
The Dextone Co	New Haven		
Fishing Tackle			
The Horton Mfg Co (reels, rods, lines)	Bristol		
The Bevin-Wilcox Line Co (lines)	East Hampton		
The H C Cook Co	32 Beaver St		
Flashlight Cases			
Scovill Manufacturing Co (metal)	Waterbury		
Fluorescent Lighting Equipment			
The Wiremold Company	Hartford		
Forgings			
Clark Brothers Bolt Co	Milldale		
Heppenstall Co (all kinds and shapes)	Bridgeport		
Scovill Manufacturing Co (non-ferrous)	Waterbury		
Foundries			
Union Mfg Co (gray iron)	New Britain		
Wilcox Crittenden & Co Inc (iron, brass, aluminum and bronze)	Middletown		
The Sessions Foundry Co (iron)	Bristol		
Foundry Riddles			
The John P Smith Co	423-33 Chapel St		
Rolock Inc (brass, galvanized, steel)	New Haven		
Furnace Linings			
The Mullite Refractories Co	Shelton		
Furniture Pads			
The Gilman Brothers Company	Gilman		
Galvanizing & Electric Plating			
The Gillette-Vibber Co	New London		
Galvanizing			
Malleable Iron Fittings Co	Branford		
Wilcox Crittenden & Co Inc	Middletown		
Gaskets			
The Raybestos Div of Raybestos-Manhattan Inc	Bridgeport		
Gauges			
The Bristol Co (pressure and vacuum—recording automatic control)	Waterbury		
Gears—Reverse & Reduction for Motor Boats			
The Snow-Nabstedt Gear Corp	New Haven		
Gears and Gear Cutting			
The Hartford Special Machinery Co	Hartford		
The Gray Mfg Co (Zerol Bevel)	Hartford		
General Plating			
The Chromium Process Co (copper, nickel, chromium and cadmium plating)	Derby		
Glass Coffee Makers			
The Silex Co	80 Pliny St		
Glass Cutters			
The Fletcher Terry Co	Box 415 Forestville		
Golf Equipment			
The Horton Mfg Co (clubs, shafts, balls, bags)	Bristol		
Graphite Crucible & Products			
American Crucible Co	Shelton		
Greeting Cards			
A D Steinbach & Sons Inc	New Haven		
Grinding			
The Centerless Grinding Co Inc (Precision custom grinding; centerless, cylindrical, surface, internal and special)	19 Staples Street		
The Hartford Special Machinery Co (gears, threads, cams and splines)	Bridgeport		
Hand Tools			
The Bridgeport Hdwe Mfg Corp (nail pullers, scout axes, box opening tools, trowels, coping saws, putty knives)	Bridgeport		
Hardware			
Sargent and Co	New Haven		
Wilcox Crittenden & Co Inc (marine heavy and industrial)	Middletown		
The Bassick Company (Automotive)	Bridgeport		
Hardware—Trailer Cabinet			
The Excelsior Hardware Co	Stamford		
Hardware, Trunk & Luggage			
Corbin Cabinet Lock Div American Hardware Corp	New Britain		
J H Sessions & Son	Bristol		
Hat Machinery			
Doran Brothers Inc	Danbury		
Heat Treating			
The A F Holden Co	200 Winchester St		
The Bennett Metal Treating Co	New Haven		
1045 New Britain Ave	Elmwood		
The Stanley P Rockwell Co Inc	Hartford		
296 Homestead Ave	Shelton		
The Driscoll Wire Company			

IT'S MADE IN CONNECTICUT

Heat-Treating Equipment

The Autoyre Company Oakville
The A F Holden Co 200 Winchester St New Haven
The Stanley P Rockwell Co Inc (commercial) 296 Homestead Ave Hartford
The Wallace Barnes Co Div Associated Spring Corp Bristol

Heating Apparatus

The Miller Company (domestic oil burners and heating devices) Meriden

Highway Guard Rail Hardware

Malleable Iron Fittings Co Branford

Hinges

Sargent and Company New Haven

Homer D. Bronson Company Beacon Falls

Hoists and Trolleys

Union Mfg Company New Britain

Hollow Screws

The Allen Manufacturing Co Hartford (Advt.)

Hose Supporter Trimmings

The Hawie Mfg Co (So-Lo Grip Tabs) Bridgeport

Hot Water Heaters

Petroleum Heat & Power Co (Instantaneous domestic oil burner) Stamford

Hydraulic Brake Fluids

Eis Manufacturing Co Middletown

Industrial Finishes

Zapon Div Atlas Powder Co Stamford

Industrial and Masking Tapes

The Seamless Rubber Company New Haven

Insecticides

American Cyanamid & Chemical Corp Waterbury

Insulated Wire Cords & Cable

The Kerite Insulated Wire & Cable Co Inc Seymour

The Whitney Blake Co (Graybar Elec Co Exclusive Distributors) Hamden

Insulation

The Gilman Brothers Co Gilman

Insulating Refractories

The Mullite Refractories Co Shelton

Jacquard

Case Brothers Inc Manchester

Japanning

J H Sessions & Son Bristol

Joining

The Raybestos Div of Raybestos-Manhattan Inc (compressed sheet) Bridgeport

Key Blanks

Corbin Cabinet Lock Div American Hardware Corp New Britain

Sargent and Company New Haven

The Graham Mfg Co Derby

Labels

J & J Cash Inc (Woven) South Norwalk

Lacquers & Synthetic Enamels

Zapon Div Atlas Powder Co Stamford

Ladders

A W Flint Co 196 Chapel St New Haven

Lamps

The Rostand Mfg Company (brass, colonial style & brass candlesticks) Milford

Leather

Herman Roser & Sons Inc (Genuine Pigskin) Glastonbury

Leather Goods Trimmings

The G E Prentice Mfg Co New Britain

Letterheads

Lehman Brothers Inc (designers, engravers, lithographers) New Haven

Lighting Equipment

The Miller Co (Miller, Duplexalite, Ivanhoe) Meriden

Waterbury Companies Inc Waterbury

Locks

Sargent and Company New Haven

Locks—Cabinet

Corbin Cabinet Lock Div American Hardware Corp New Britain

The Excelsior Hardware Co Stamford

Locks—Suit-Case and Trimmings

Corbin Cabinet Lock Div American Hardware Corp New Britain

The Excelsior Hardware Co Stamford

Locks—Trunk

Corbin Cabinet Lock Div American Hardware Corp New Britain

The Excelsior Hardware Co Stamford

Locks—Zipper

The Excelsior Hardware Co Stamford

Loom-Non-Metallic

The Wiremold Company Hartford

Machine Work

The Hartford Special Machinery Co (contract work only) Hartford

The Torrington Manufacturing Co (special rolling mill machinery) Torrington

Machinery

The Hallden Machine Company (mill) Thomaston

The Torrington Manufacturing Co (mill) Torrington

The Standard Machinery Co (bookbinders) Mystic

Machinery Dealers & Rebuilders

Botwinik Brothers New Haven

Machinery Dealers Inc New Haven

J L Lucas and Son Fairfield

Machines

Andrew C Campbell Div American Chain & Cable Co Inc (cutting & nibbling) Bridgeport

The Patent Button Company Waterbury

Machines—Automatic

The A H Nilson Mach Co (Special) Bridgeport

Machines—Forming

The A H Nilson Mach Co (four-slide wire and ribbon stock) Bridgeport

Magnets

Cinaudagraph Corp (Permanent) Stamford

Mail Boxes, Apartment & Residential

Corbin Cabinet Lock Div American Hardware Corp New Britain

Marine Equipment

The Rostand Mfg Co (portlights, deck, cabin and sailboat hardware) Milford

Wilcox Crittenden & Co Inc Middletown

Marking Devices

The Hoggson & Pettis Mfg Co New Haven

Matrices

W T Barnum & Co Inc New Haven

Mattresses

Palmer Brothers Co New London

Waterbury Mattress Co Waterbury

Mechanical Assemblies—Small

M H Rhodes Inc Hartford

Mechanics Hand Tools

The Bridgeport Hdwe Mfg Corp (screw drivers, wrenches, pliers, cold chisels, hammers, auto repair tools) Bridgeport

Metal Cleaners

Apothecaries Hall Co Waterbury

Metal Cleaning Machines

Colt's Patent Fire Arms Mfg Co Hartford

Metal Goods

Bridgeport Brass Co (to order) Bridgeport

Metal Novelties

The H C Cook Co 32 Beaver St Ansonia

Waterbury Companies Inc Waterbury

Metal Products—Stampings

J H Sessions & Son Bristol

Scovill Manufacturing Co (Made to Order) Waterbury

Metal Specialties

The Excelsior Hardware Co Stamford

The G E Prentice Mfg Co New Britain

Metal Stampings

The Autoyre Co (small) Oakdale

The Patent Button Co Waterbury

The Excelsior Hardware Co Stamford

J H Sessions & Son Bristol

The H C Cook Co 32 Beaver St Ansonia

The Greist Mfg Co 503 Blake St New Haven

Waterbury Companies Inc Waterbury

Bridgeport Chain & Mfg Co Bridgeport

Microfilming

Microstat Corp of New England Inc Norwalk

Milk Bottle Carriers

The John P Smith Co 323-33 Chapel St New Haven

Millboard

The Raybestos Div of Raybestos-Manhattan Inc (asbestos) Bridgeport

Mill Supplies

Wilcox Crittenden & Co Inc Middletown

Moulded Plastic Products

The Patent Button Co Waterbury

Colt's Patent Fire Arms Mfg Co Hartford

The Watertown Mfg Co 117 Echo Lake Road Watertown

Moulds

The Hoggson & Pettis Mfg Co (steel) 141 Brewery St New Haven

The Sessions Foundry Co (heat resisting for non ferrous metals) Bristol

Nickel Anodes

Apothecaries Hall Co Waterbury

The Seymour Mfg Co Seymour

Nickel Silver

The Seymour Mfg Co Seymour

Nuts Bolts and Washers

Clark Brothers Bolt Co Milldale

Office Equipment

Underwood Elliott Fisher Co Hartford

Oil Burners

The Silent Glow Oil Burner Corp Hartford

Petroleum Heat & Power Co (domestic commercial and industrial) Stamford

The Miller Company (domestic) Meriden

Oil Burner Wick

The Raybestos Div of Raybestos-Manhattan Inc Bridgeport

Packing

The Raybestos Div of Raybestos-Manhattan Inc (rubber sheet and automotive) Bridgeport

Padlocks

Corbin Cabinet Lock Div American Hardware Corp New Britain

Paints and Enamels

The Staminit Corp New Haven

The Tredennick Paint Mfg Co Meriden

Paperboard

Connecticut Corrugated Box Div Robert Gair Co Inc Portland

The New Haven Pulp & Board Co New Haven

Paper Boxes

National Folding Box Co (folding) New Haven

The New Haven Pulp & Board Co New Haven

Robertson Paper Box Co (folding) Montville

The Strouse, Adler Co New Haven

Atlantic Carton Corp (folding) Norwich

The Warner Brothers Company Bridgeport

Paper Clips

The H C Cook Co (steel) 32 Beaver St Ansonia

Paper Tubes and Cores

Sonoco Products Co (Climax-Lowell Div) Mystic

Parallel Tubes

Sonoco Products Co (Climax-Lowell Div) Mystic

Pharmaceutical Specialties

Ernst Bischoff Company Inc Ivoryton

Phosphor Bronze

The Seymour Mfg Co Seymour

The Bristol Brass Corp (sheet) Bristol

The Miller Company (sheets, strips, rolls) Meriden

Pipe

The American Brass Co (brass and copper) Waterbury

Howard Co (cement well and chimney) New Haven

Crane Company (fabricated) Bridgeport

Bridgeport Brass Co (brass & copper) Bridgeport

Scovill Manufacturing Co (copper, red brass and yellow brass) Waterbury

Pipe Fittings

Malleable Iron Fittings Co Branford

Plastic Buttons

Colt's Patent Fire Arms Mfg Co Hartford

Plastics—Extruded

Extruded Plastics Inc Norwalk

Platers

The Patent Button Co Waterbury

The Plainville Electro Plating Co Plainville

Platers—Chrome

The Plainville Electro Plating Co Plainville

The Hartford Chrome Corporation Hartford

Platers' Equipment

MacDermid Incorporated Waterbury

Plumbers' Brass Goods

Bridgeport Brass Co Bridgeport

Scovill Manufacturing Co Waterbury

Plumbing Specialties

John M Russell Mfg Co Inc Naugatuck

Pole Line

Malleable Iron Fittings Co Branford

Polishing Wheels

The Williamsville Buff Mfg Co Danielson

Printing

The Case Lockwood & Brainard Co Hartford

Presses

The Standard Machinery Co (plastic molding, embossing, and die cutting) Mystic

Press Papers

Case Brothers Inc Manchester

Propellers—Aircraft

Hamilton Standard Propellers Div United Aircraft Corp East Hartford

Propeller Fan Blades

The Torrington Manufacturing Co Torrington

Punches

The Hoggson & Pettis Mfg Co (ticket & cloth) 141 Brewery St New Haven

Putty Softeners—Electrical

The Fletcher Terry Co Box 415 Forestville

Pyrometers

The Bristol Co (recording and controlling) Waterbury

Radiation-Finned Copper

The G. & O Manufacturing Company New Haven

Railroad Equipment

The Rostand Mfg Co (baggage racks and mirrors for passenger cars) Milford

Rayon Yarns

The Hartford Rayon Corp Rocky Hill

Reamers

The O K Tool Co Inc (inserted tooth) 33 Hull St Shelton

Recorders

The Bristol Co (automatic controllers, temperature, pressure, flow, humidity) Waterbury

IT'S MADE IN CONNECTICUT

Refractories		
Howard Company	New Haven	
Regulators		
Norwalk Valve Company (for gas and air)	South Norwalk	
Resistance Wire		
The C O Jelliff Mfg Co (Nickel chromium, kanthal)	Southport	
Retainers		
The Hartford Steel Ball Co (bicycle & automotive)	Hartford	
Reverse Gear-Marine		
The Carlyle Johnson Mach Co	Manchester	
Riveting Machines		
The Grant Mfg & Machine Co	Bridgeport	
The Raybestos Div of Raybestos-Manhattan Inc (brake service equipment)	Bridgeport	
Rivets		
The Connecticut Manufacturing Company	Waterbury	
Clark Brothers Bolt Co	Milldale	
The Blake & Johnson Co (brass, copper and non-ferrous)	Waterville	
J. H. Sessions & Son	Bristol	
The Raybestos Div of Raybestos-Manhattan Inc (brass and aluminum tubular and solid copper)	Bridgeport	
The Raybestos Div of Raybestos-Manhattan Inc (iron)	Bridgeport	
Rods		
The Bristol Brass Corp (brass and bronze)	Bristol	
Roof Coatings & Cements		
Tilo Roofing Co Inc	Stratford	
Roofing-Built Up		
Tilo Roofing Co Inc	Stratford	
Rubber Chemicals		
The Stamford Rubber Supply Co ("Factice" Vulcanized Vegetable Oils)	Stamford	
Rubberized Fabrics		
The Duro-Gloss Rubber Co	New Haven	
Rubber Footwear		
The Goodyear Rubber Co	Middletown	
United States Rubber Prod Inc (Keds, Kedeettes, Gaytees, U S Royal Footwear)	Naugatuck	
Rubber Gloves		
The Seamless Rubber Company	New Haven	
Rubbish Burners		
The John P Smith Co 423-33 Chapel St	New Haven	
Safety Fuses		
The Ensign-Bickford Co (mining & detonating)	Simsbury	
Saw Blades		
The Capewell Mfg Co (Hack Saw, Band Saw)	Hartford	
Saws, Band, Metal Cutting		
Atlantic Saw Mfg Co	New Haven	
Scales-Industrial Dial		
The Kron Company	Bridgeport	
Scissors		
The Acme Shear Company	Bridgeport	
Screw Machine Products		
The Apex Tool Co Inc	Bridgeport	
The Connecticut Manufacturing Company	Waterbury	
Corbin Screw Div, American Hardware Corp	New Britain	
The Blake & Johnson Co	Waterville	
The Centerless Grinding Co Inc (Heat treated and ground type only)	Bridgeport	
19 Staples Street	Bridgeport	
The Eastern Machine Screw Corp	New Haven	
Truman & Barclay St	Forestville	
The Humason Mfg Co	New Haven	
The Greist Mfg Co (Up to 1 1/4" capacity)	New Haven	
Scovill Manufacturing Co	Waterbury	
Screws		
The Blake & Johnson Co (machine)	Waterbury	
Corbin Screw Div, American Hardware Corp	New Britain	
Sargent and Company	New Haven	
Clark Brothers Bolt Co	Milldale	
The Charles Parker Co (wood)	Meriden	
Scovill Manufacturing Co (cap and machine)	Waterbury	
The Connecticut Mfg Co (machine)	Waterbury	
Scythes		
Winsted Manufacturing Co	Winsted	
Sewing Machines		
The Greist Mfg Co (Sewing machine attachments)	503 Blake St New Haven	
The Merrow Machine Co (Industrial)	Hartford	
Shaving Soaps		
The J B Williams Co	Glastonbury	
Shears		
The Acme Shear Co (household)	Bridgeport	
Sheet Metal Products		
The American Brass Co (brass and copper)	Waterbury	
Sheet Metal Stampings		
The American Buckle Co	West Haven	
The Patent Button Co	Waterbury	
J H Sessions & Son	Bristol	
Showcase Lighting Equipment		
The Wiremold Company	Hartford	
Shower Stalls		
Dextone Company	New Haven	
Signals		
The H C Cook Co (for card files)	Ansonia	
32 Beaver St	Ansonia	
Silks		
Cheney Brothers	South Manchester	
Sizing and Finishing Compounds		
American Cyanamid & Chemical Corp	Waterbury	
Smoke Stacks		
The Big-low Company (steel)	New Haven	
Soap		
The J B Williams Co (industrial soaps, toilet soaps, shaving soaps)	Glastonbury	
Special Parts		
The Greist Mfg Co (small machined, especially precision stampings)	New Haven	
Special Industrial Locking Devices		
Corbin Cabinet Lock Div American Hardware Corp	New Britain	
Spinnings		
The Gray Manufacturing Company	Hartford	
Sponge Rubber		
The Sponge Rubber Products Co	Derby	
Spreads		
Palmer Brothers Company	New London	
Spring Coiling Machines		
The Torrington Manufacturing Co	Torrington	
Spring Units		
American Chain & Cable Co Inc	Bridgeport	
Owen Silent Spring Co Inc (mattresses and upholstery furniture)	Bridgeport	
Spring Washers		
The Wallace Barnes Co Div Associated Spring Corp	Bristol	
Spring-Coil & Flat		
The Humason Mfg Co	Forestville	
The Wallace Barnes Co Div Associated Spring Corp	Bristol	
Spring-Flat		
The Wallace Barnes Co Div Associated Spring Corp	Bristol	
Spring-Furniture		
American Chain & Cable Co Inc	Bridgeport	
Owen Silent Spring Co Inc	Bridgeport	
Spring-Wire		
The Wallace Barnes Co Div Associated Spring Corp	Bristol	
J W Bernston Company (Coil and Torsion)	Plainville	
Spring, Wire & Flat		
The Autoyre Company	Oakville	
Stair Pads		
Palmer Brothers Company	New London	
Stamps		
The Hoggson & Pettis Mfg Co (steel)	New Haven	
141 Brewery St	New Haven	
Stampings		
The Rogers Paper Mfg Co (Fibre, Cellulose, Paper)	Manchester	
Stampings-Small		
The Greist Manufacturing Co	New Haven	
The Wallace Barnes Co Div Associated Spring Corp	Bristol	
Staples		
Sargent and Company	New Haven	
Steel Castings		
The Hartford Electric Steel Co (carbon and alloy steel)	540 Flatbush Ave Hartford	
Malleable Iron Fittings Co	Branford	
Nutmeg Crucible Steel Co	Branford	
Steel-Cold Rolled Spring		
The Wallace Barnes Co Div Associated Spring Corp	Bristol	
Steel-Cold Rolled Stainless		
Wallingford Steel Company	Wallingford	
Steel-Cold Rolled Strip and Sheets		
Wallingford Steel Company	Wallingford	
Steel Goods		
Scovill Manufacturing Co (To Order)	Waterbury	
Steel-Magnetic		
Cinaudagraph Corporation	Stamford	
Stereotypes		
W T Barnum & Co Inc	New Haven	
Stop Clocks, Electric		
The H C Thompson Clock Co	Bristol	
Studio Couches		
Waterbury Mattress Co	Waterbury	
Super Refractories		
The Mullite Refractories Co	Shelton	
Surface Metal Raceways & Fittings		
The Wiremold Company	Hartford	
Surgical Dressings		
The Seamless Rubber Company	New Haven	
Acme Cotton Products Co Inc	East Killingly	
Surgical Rubber Goods		
The Seamless Rubber Company	New Haven	
Switchboards		
Plainville Electrical Products Co	Plainville	
Switchboards Wire and Cables		
Rockbestos Products Corp (asbestos insulated)	New Haven	
Tanks		
The Bigelow Company (steel)	New Haven	
Tape		
The Russell Mfg Co	Middletown	
Tap Extractors		
The Walton Co	94 Allyn St Hartford	
Taps, Collapsing		
The Geometric Tool Co	New Haven	
Tarred Lines		
Brownell & Co Inc	Moodus	
Telemetering Instruments		
The Bristol Co	Waterbury	
Textile Machinery		
The Merrow Machine Co	2814 Laurel St Hartford	
Textile Mill Supplies		
Ernst Bischoff Company Inc	Ivoryton	
Textile Processors		
The Aspinook Corp (cotton)	Jewett City	
Thermometers		
The Bristol Co (recording and automatic control)	Waterbury	
Thin Gauge Metals		
The Thinsheet Metals Co (plain or tinned in rolls)	Waterbury	
Thread		
Max Pollack & Co Inc	Groton	
The American Thread Co	Williamantic	
The Gardiner Hall Jr Co (cotton sewing)	South Willington	
Wm Johl Manufacturing Co	Mystic	
Threading Machines		
The Grant Mfg & Machine Co (double and automatic)	Bridgeport	
Time Recorders		
Stromberg Time Corp	Thomaston	
Timers, Interval		
The H C Thompson Clock Co	Bristol	
Timing Devices and Time Switches		
M H Rhodes Inc	Hartford	
Tinning		
Wilcox Crittenden & Co Inc	Middletown	
The Thinsheet Metals Co (non-ferrous metals in rolls)		
The Hoggson & Pettis Mfg Co (rubber workers)	141 Brewery St New Haven	
The O K Tool Co Inc (inserted tooth metal cutting)	33 Hull St Shelton	
Tools, Dies & Fixtures		
Tht Greist Mfg Co	New Haven	
Toys		
A C Gilbert Company	New Haven	
The Gong Bell Co	East Hampton	
The N N Hill Brass Co	East Hampton	
Trucks-Industrial		
George P Clark Co	Windsor Locks	
Trucks-Lift		
The Excelsior Hardware Co	Stamford	
George P Clark Co	Windsor Locks	
Trucks-Skid Platforms		
The Excelsior Hardware Co (lift)	Stamford	
Tube Bending		
American Tube Bending Co Inc	New Haven	
Tube Clips		
The H C Cook Co (for collapsible tubes)	32 Beaver St Ansonia	
Tubing		
The American Brass Co (brass and copper)	Waterbury	
Scovill Manufacturing Co (copper alloys)	Waterbury	
Tubing-Condenser		
Scovill Manufacturing Co	Waterbury	
Tubing (Extruded Plastic)		
Extruded Plastics Inc	Norwalk	
Typewriters		
Underwood Elliott Fisher Co	Hartford	
Typewriter Ribbons		
Underwood Elliott Fisher Co	Hartford	
Underclearer Rolls		
Sonoco Products Co (Climax-Lowell Div)	Mystic	
Vacuum Bottles and Containers		
American Thermos Bottle Co	Norwich	
Vacuum Cleaners		
The Spencer Turbine Co	Hartford	
Valves		
Norwalk Valve Company (sensitive check valves)	South Norwalk	
Valves-Automatic Air		
Beaton & Cadwell Mfg Co	New Britain	
Valves-Flush		
Beaton & Cadwell Mfg Co	New Britain	
Valves-Relief & Control		
Beaton & Cadwell Mfg Co	New Britain	
Varnishes		
The Staminite Corp	New Haven	

IT'S MADE IN CONNECTICUT

Ventilating Systems
Colonial Blower Company Hartford
Vises
The Charles Parker Co Meriden
Washers
The Blake & Johnson Co (brass, copper & non-ferrous) Waterville
American Felt Co (felt) Glenville
Clark Brothers Bolt Co Middletown
The Sessions Foundry Co (cast iron) Bristol
J H Sessions & Son Bristol
The Raybestos Div of Raybestos-Manhattan Inc (clutch washers) Bridgeport
Watches
Benrus Watch Co 30 Cherry St Waterbury
Waterproof Dressings for Leather
The Viscol Company Stamford
Webbing
The Russell Mfg Co Middletown
Welding Rods
The Bristol Brass Corp (brass & bronze) Bristol
Wheels—Industrial
George P Clark Co Windsor Locks
Wicks
The Russell Mfg Co Middletown
The Raybestos Div of Raybestos-Manhattan Inc (oil burner wicks) Bridgeport (Advt.)
Wire
The Bristol Brass Corp (brass & bronze) Bristol
The Driscoll Wire Co (steel) Shelton
Hudson Wire Co Winsted (insulated & enameled magnet) Winsted
The Atlantic Wire Co (steel) Branford
The Platt Bros & Co (zinc wire) Waterbury P O Box 1030

Rockbestos Products Corp (asbestos insulated) New Haven
Scovill Manufacturing Co (brass, bronze and nickel silver) Waterbury
Wire Arches and Trellis
The John P Smith Co New Haven
423-33 Chapel St
Wire Baskets
Rolock Inc (for acid, heat, degreasing) Fairfield
Wire Cable
The Bevin-Wilcox Line Co (braided) East Hampton
Wire Cloth
The C O Jelliff Mfg Co (All metals, all meshes) Southport
The John P Smith Co New Haven
423-33 Chapel St
Wire Drawing Dies
The Waterbury Wire Die Co Waterbury
Wire Dipping Baskets
The John P Smith Co New Haven
423-33 Chapel St
Wire—Enameled Magnet
Sweet Wire Co Winsted
Wire Formings
The Autoyre Co Oakville
Wire Forms
The Humason Mfg Co Forestville
The Wallace Barnes Co Div Associated Spring Corp Bristol

Wire Goods
The Patent Button Co Waterbury
The American Buckle Co (overall trimmings) West Haven
Scovill Manufacturing Co (To Order) Waterbury
Wire Mesh
Rolock Inc (all meshes and metals) Fairfield
Wiremolding
The Wiremold Company Hartford
Wire Nuts—Solderless
The Wiremold Company Hartford
Wire Reels
The A H Nilson Mach Co Bridgeport
Wire Partitions
The John P Smith Co New Haven
423-33 Chapel St
Wire Rings
The American Buckle Co (pan handles and tinner's trimmings) West Haven
Wire Shapes
Bridgeport Chain & Mfg Co Bridgeport
Woodwork
C H Dresser & Son Inc (Mfg all kinds of woodwork) Hartford
Yarns
The Ensign-Bickford Co (jute carpet) Simsbury
Reynolds & Co (cotton, rayon) Norwich
Zinc
The Platt Bros & Co (ribbon, strip and wire) P O Box 1030 Waterbury
Zinc Castings
Newton-New Haven Co Inc 688 Third Ave West Haven (Advt.)

MACHINERY FOR THE FUTURE

(Continued from page 17)

production industries, we will have newer types of what are called standard tools. The standard tool of the future will, however, be more flexible than its counterpart of the past. This standard tool will have electromechanical control of speeds and feeds. It will have all of the features that have been built into the latest machine tools in the last few years plus many more. The total overall cutting time of a machine will be the determining factor. By that I mean that the time spent on many of our machines today in loading and unloading runs anywhere from 25% to 75% of the total operator's productive hours. We must make that machine remove chips every moment and those machines are the ones that will give us the results we are after.

Now, funneling our thoughts to some of the machines that will bear an important relationship to the profit angle of manufacturing in the next few years! Let me take one machine that has made tremendous strides in America and which will be used even more and more as time goes on. I refer to Mr. Burt's Jig Borer. They have been a toolroom machine to a great extent, but the accuracy demanded today and the super accuracy that will be demanded tomorrow, will neces-

sitate the use of jig boring type machines in greater and greater quantities.

Moving quickly over to the other side, grinding machines of all types will have to be speeded up to increase production and yet give us the finish that we want, that is, a commercial surface tolerance of ten millionths of an inch. This is obtainable, but better spindles must be created to hold the quality of workmanship that is here required.

Broaching seems to hold tremendous possibilities for high production work. More flexible type of broaching machinery is required and, I had the opportunity recently to see a model of a machine which holds tremendous potentials, if one or two of the little "bugs" now apparent can be worked out.

One manufacturer has just announced a machine driven by a 50 horse power motor and a machine with a 100 horse power motor is being built. The old standard drive was 15 horse power. All to make use of the tremendous cutting speeds available through the medium of tungsten carbide.

One of my friends has just returned from England and he has secured the American rights on a beautiful machine for rolling threads. The amazing thing is, that a No. 3 and No. 4 fit can be secured by this method.

In discussing this with the head of a machine tool company at the West-

inghouse Forum in Pittsburgh recently, it was brought out that his company was getting ready to place on the market a centerless thread grinder. Twenty years ago if anyone had made the remark that one could create threads by the centerless method, you would have wondered what institution would accept him because there was surely something wrong.

But these are only smaller things—a preview of greater things to come. You cannot take and ask the machine tool industry of America to produce, as they have, three billion dollars worth of machine tools in three years (which is more than they have produced in forty years) and expect the industry does not realize that this tremendous over-production is in itself the greatest challenge it ever had.

I believe the machine tool industry knows its life or death depends on the ability of its engineers to obsolete the very products they have produced and even though in the past the development of machine tools has been an evolutionary rather than a revolutionary process, I think in this case the evolutionary process will be accentuated by the fact that they must keep their plants busy and they also must give to America tools capable of reducing costs in every conceivable manner, so that America can maintain not only its high standard of living here, but also its competitive place among the nations of the world.

SERVICE SECTION

FOR SALE—RENT—WANTED

WELDING FACILITIES AVAILABLE—Sub-Contractor has open capacity for producing fabricated steel parts and production arc, acetylene welding, brazing and silver brazing. Address MTA 206.

MANUFACTURER—of automatic drilling and tapping machinery is in a position to handle drilling and tapping production on a contract basis, capacity up to 7/16 NF. Address MTA 213.

AVAILABLE—Idle machine time on Foster and Bullard turret lathes which are especially suitable for handling tubular stock up to 3 1/2" in diameter. Address MTA 221.

AVAILABLE—Subcontract Production. Manufacturer in a position to handle a limited number of jobs on which assistance is needed—specializes in difficult or unusual work on which engineering and mechanical ingenuity can show results—secondary operations and assembly. Address MTA 222.

AVAILABLE—Considerable available screw machine capacity including approximately 3,000 hours Single Spindle Automatics from 1/8" to 2" in diameter, #00 and #0 Brown & Sharps, and Multiple Spindle Automatics from 1/4" x 1 1/4" in diameter. Address MTA 223.

FOR SALE—600 Tanks—made of 1/8" Black Iron Sheet—welded water tight. Size—32" long, 18 1/4" wide, 6" high. Tanks have 3 baffle plates at bottom of 1/16" iron sheet—3 3/4" high. Each tank has two (2) steel strap legs on the bottom—1 1/4" high. Condition—brand new—never been used. Blue print will be furnished on request. Address S. E. 464.

FOR SALE—4590 lbs. CR 1050 Annealed Steel 2-7/16 x .206" x 96" LG. Address S. E. 473.

FOR SALE—25 Relief Valves: Mason Neilan Fig. 33-R Pattern; 3/8" Union Connections; 1/4" Ports; Monel 3 1/2" Diaphragms; 2-20 lbs. range with present springs; can give 20-40 lbs. or 40-100 lbs. by changing springs. For steam or air service; bronze bodies; monel trim. Address S. E. 476.

WANTED—200 feet 12 or 14" Roller Gravity Conveyor. Address S. E. 481.

FOR SALE—78,000 pounds of high test steel of varying dimension and analysis—list on request. Address S. E. 485.

FOR SALE—Grinding wheels, segments, power saw blades, files, reamers, drills, and mounted points—list on request. Address S. E. 486.

WANTED—Chipboard—one carload—38 point—40 inch rolls—in length—40 inch rolls—in diameter. Address S. E. 489.

WANTED—1—36" brake, capable of bending 1/16" steel. Address S. E. 490.

FOR SALE—Mr. Putnam of the New Haven Area Office of the Army Air Forces—109 Church Street, New Haven, Property Disposal Section. Tel. 7-3551, has a large list of machine tools, dies, jigs, fixtures and gages located in a Connecticut company. These items are for sale because of a cancelled contract. Address S. E. 491.

PERSONNEL

ADVERTISING-MARKET RESEARCH AND PLANNING—Long, successful experience in developing new programs and functions with outstanding Connecticut manufacturer, particularly in marketing and advertising—Initial salary incidental to opportunity of demonstrating training and imagination in phase of postwar planning—Age 56—married. Address P. W. 1057.

SALES EXECUTIVE AND GENERAL MANAGER—Thoroughly experienced in all phases of distribution—12 years with large hardware manufacturer—3 years with manufacturer of heavy chemicals—11 years with manufacturer of floor covering—At present Supervising Sales and General Manager for manufacturer of textile machinery—Excellent record—adaptable—gets results. Address P. W. 1085.

SALES MANAGER—14 years with present company directing Sales and Advertising—4 years with automobile finance company as Branch Manager—3 years with nationally known accounting machine company as Salesman, Branch Manager and Sales Manager of Manufacturing Division—8 years with textile company as Cashier and Office Manager—age 49—married. Address P. W. 1097.

MANUFACTURERS' AGENT—Anxious to make connections with Connecticut manufacturers for the sale of their product throughout Texas and Louisiana—interested in making connections with manufacturers whose products would be used in oil refineries, sugar refineries, chemical, sulphur, and synthetic plastics plants, and ship yards. Address P. W. 1103.

ACCOUNTANT—18 years general accounting, office management and purchasing experience. Thorough knowledge of cost accounting, motor equipment maintenance, traffic, machining and assembly experience. Desires position, with opportunities, in either accounting or production control department of reliable manufacturer, Hartford or vicinity, where good financial and mechanical background together with better than average ability will be recognized. Age 37—married—3 dependents. Address P. W. 1121.

MANUFACTURING EXECUTIVE—25 years in reorganization and management of large and small business—20 years spent in European manufacture—American born—Age 51. Up to \$15,000. Address P. W. 1130.

SALES EXECUTIVE—26 years' extensive experience electrical manufacture and sales and promotion management. Age 42. Address P. W. 1157.

EXECUTIVE ASSISTANT—State and Federal Relations—lawyer, 53, admitted in New York, residing in Connecticut, will assist in Federal matters for the duration—no salary during breaking in period. Address P. W. 1184.

EXECUTIVE OR PRODUCTION ENGINEER—EFFICIENCY ENGINEER—INDUSTRIAL ANALYST—Efficiency methods—time study—design—speaks besides English: French, German, Spanish, Russian, and all Scandinavian languages—graduate Tech. Inst., Zurich, Switzerland. Address P. W. 1185.

ENGINEERING DESIGN, PRODUCTION AND MANAGEMENT—Solution of the problems of design, fabrication and construction—planning, layout and execution of work—ability and need to produce within the given cost range of contracts and estimates—handling and understanding of men—preparation of estimates—purchasing—securing contracts, orders and working capital in highly competitive field—knowledge of markets, trends, source of supplies and prices—appraisal of plants and assets—age 33—B. S. C. E. Notre Dame—post graduate work at N. Y. U. School of Bus. Administration. Address P. W. 1186.

EXECUTIVE TECHNICAL SALES ENGINEER—Born New Haven—life resident Detroit—World War I artillery and tank combat officer—experienced engineer contact, development, test, laboratory, proving grounds, field quality, installations, automotive, aircraft—top flight acquaintanceship entire automotive industry—prefer Detroit headquarters—well acquainted Michigan, Ohio, Indiana, Wisconsin, Illinois, New York. Address P. W. 1187.

FOREIGN TRADE—13 years in State Department—extensive consular and secretarial experience in South America—age 39—Harvard A. B. and Foreign Service Training. Address P. W. 1196.

HANDWRITING EXPERT—Man who has studied and worked with a handwriting expert for 20 years and who for the past several years has been employed by police departments, attorneys and courts to analyze handwriting in forging cases, is now offering a unique protective service to business and industry at a nominal annual service charge—further details furnished by principal upon written request to the above box number. Address P. W. 1197.

SALES AND PROMOTION EXECUTIVE—experienced in sales promotion, marketing methods and product design. Graduate engineer with knowledge of manufacturing processes—open for business connection with industrial organization where initiative and ideas for present and post war business would be appreciated—age 46. Address P. W. 1198.

SALES ENGINEER—Age 45—Yale Engineering degree—in addition to sales has had purchasing and production planning experience—minimum \$5000. Address P. W. 1199.

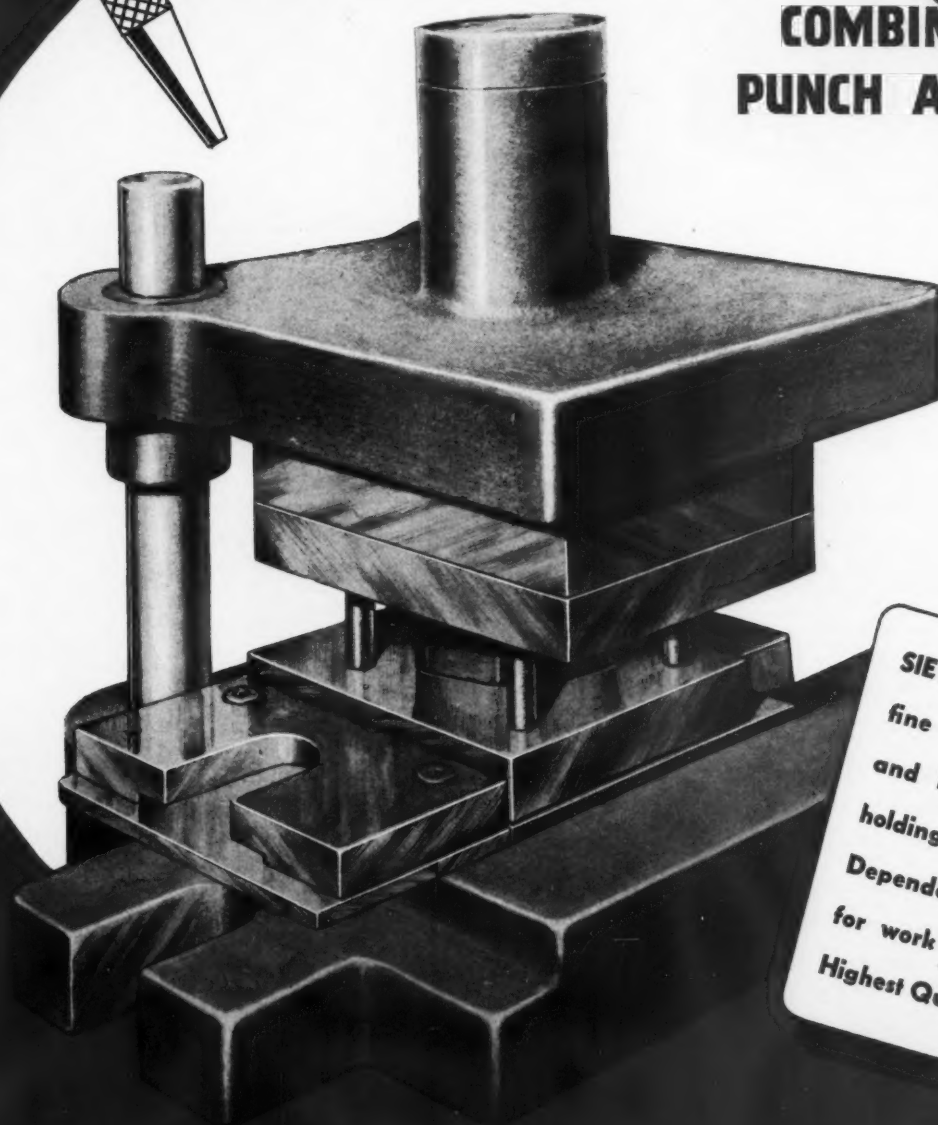
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